

Agricultural Statistics

for Manitoba

North-West Territories

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ANNEX TO THE REPORT OF THE MINISTER OF AGRICULTURE
FOR THE YEAR 1884.

AGRICULTURAL STATISTICS

FOR

MANITOBA

AND THE

NORTH-WEST TERRITORIES



OTTAWA:

PRINTED BY MACLEAN, ROGER & CO., WELLINGTON STREET,
1885.

Subjoined are Reports of Agricultural Statistics for the Province of Manitoba and the North-West Territories for 1884, so far as it has been possible to obtain them.

The reports from the Province of Manitoba were obtained under an arrangement made with the Government of that Province.

Those from the North-West Territories by means of correspondence and circulars direct from the Department of Agriculture.

DEPARTMENT OF AGRICULTURE,

OTTAWA.





PROVINCE OF MANITOBA.

AGRICULTURAL STATISTICS.

The system of securing information respecting the crops and other agricultural matters, established in 1883, having, though necessarily imperfect for the first year, given such very general satisfaction, steps were taken early in 1884, to continue it for a second season, and to extend its operations and perfect its accuracy and value. On 12th February, 1884, a circular was issued to each correspondent who had acted in 1883, and whose services had proved satisfactory, as follows:—

"I am directed by the Minister to say that it is intended to continue the system of the collection of agricultural information and statistics established by this Department last year. Your services to the Department during 1883 were very valuable and satisfactory, and it is desired to secure them again for 1884. The work for the coming season will be much lighter for correspondents than during last year, as each circular will be sent out at a considerably earlier date, thus allowing fully double the time previously available for collecting the information and filling in the answers. As in the past, no cash remuneration will be made to correspondents, but they will receive copies of each of the crop reports as issued, a copy of the annual report and of all the other publications of the Department, and will be given free admission to the annual provincial exhibition, for which they will be allowed to make entries of exhibits without payment of the usual entry fee. In case it should be impossible for you to act during the coming season, it will be esteemed a favor if you will recommend some good person in your township to take your place. It is desired to complete the list of correspondents at as early a date as possible, and I am to ask that you will oblige by signing the form enclosed herewith and returning it by an early mail. If forwarded in the enclosed envelope and left unsealed, it will be transmitted free of postage."

At the same time steps were taken to secure correspondents in the townships which had been unrepresented in 1883, where correspondents had proved unsatisfactory, and where satisfactory correspondents declined to continue the work for a second season, or had removed. The circular issued for this purpose, and which fully explained the system adopted for this branch of the service, and which was mailed to members of the Legislative Assembly and of the Board of Agriculture, to the secretary-treasurers of electoral divisions, agricultural societies, and to municipal councils throughout the Province, was as follows:—

"It is the intention of this Department to continue the system of agricultural statistics which has already met with such warm public approval, for the purpose of securing accurate reports of the acreage under cultivation; the prospects of the crop, from month to month, during the growing season; the average and aggregate yields harvested; the number and condition of live stock, and other matters affecting farmers' interests. This information is to be again secured from voluntary correspondents, as in the Province of Ontario, and in the States of Illinois, Ohio, Iowa and elsewhere, where similar systems have worked with great success. One correspondent is desired in each township in the Province, an area of 36 sections being considered the largest territory for which any one person can intelligently report. Correspondents will be supplied, from time to time, with series of questions on printed forms, which they will be required to fill up and return to the Department in official envelopes, which will be supplied under an arrangement effected with the Postmaster-General, who has authorized their transmission through the mails free of postage. As in the places above mentioned, no cash remuneration will be made to correspondents, but each will receive copies of the printed crop reports as issued, a copy of the annual report of the Department, and of all its other publications, and

will be given free admission to the annual provincial exhibition, for which they will be allowed to make entries of exhibits without payment of the usual entry fees. The compilation and publication of accurate crop reports is a matter of vital interest to every farmer, and it is hoped that in Manitoba the same spirit will continue to be manifested as heretofore, and that the cordial co-operation of the agricultural community will be still further secured. Enclosed herewith is a list of townships, &c., in your district, for which correspondents are required. It is desired that you will fill in, on the list, the names, post office addresses and occupations of persons who you think likely to make good correspondents. Where practicable, it is desirable that their consent to act should be obtained, but in cases where you have no opportunity of communicating with them, they will be written from this Department, after the return of your list. It is of paramount importance that each person selected be resident in the township for which he is to correspond, and that his location therein be as nearly central as possible, due regard being also given to his proximity to a post office, so as to prevent delays in the transmission of communications. The printed forms to be sent to correspondents will be as simple and plain as possible, but considerable care will require to be exercised in filling them up, as their value will entirely depend upon their accuracy. The persons selected as correspondents should, therefore, be fully competent to perform this duty, and should, in all cases, where not absolutely impossible, be practical farmers, actually in the occupation of land. As the first crop bulletin will have to be issued early in the spring, and as considerable time will necessarily be taken in correspondence with persons recommended, after the receipt of your list, it is requested that you will give the matter your immediate attention, and return the forms, duly filled up, in the enclosed envelope, at your earliest possible convenience. Your assistance in this work will be greatly appreciated by the Department."

This circular was very generally responded to, and on the various lists of correspondents suggested being received at the Department, a circular was sent to each person selected therefrom. The first two paragraphs of this circular were worded precisely similarly to the first two of the circular quoted immediately above. The concluding paragraph was as follows:—

"Your name has been suggested as correspondent for the township mentioned below, and it is hoped you will consent to act in that capacity. As the first crop bulletin of the season will have to be issued early in the spring, and as considerable time will necessarily be taken in perfecting the system, even after the list of correspondents has been completed, it is requested that, if you are willing to become one, you will at once notify the Department, on the enclosed form, which will be transmitted, postage free, in the enclosed envelope, if left unsealed. In case you cannot act, please state so by return of mail, in order that no delay may take place."

CONTENTS OF CIRCULARS.

The invitations to persons to act as correspondents having been so generally and satisfactorily responded to, the first circular asking information was issued from the Department on 15th April, 1884, with a request that it be filled up and mailed back to the Department on 1st June. The date fixed for its return was precisely the same as in 1883, but the date of its issue to correspondents was exactly a month earlier. 1883 being the first season of operations of the crop report branch of the Department, the work was necessarily hurried and sufficient time was not allowed correspondents in all cases to gather the information asked of them without putting them to considerable inconvenience. The organization was, however, so much further perfected during 1884 that the blank forms for use by correspondents were mailed to them six weeks prior to the date on which their return was asked. Correspondents were thus enabled to obtain the fullest information possible on which to base their answers, and were enabled to gather it during ordinary intercourse with their neighbours, without having to make special journeys through their respective townships. The first circular, issued on 15th April, was prefixed by the following remarks:—

"I am directed by the Minister to say that as you have kindly consented to act as a crop correspondent, the first series of questions to be answered is now sent you. Please read over this circular very carefully before filling in the answers. If you cannot answer any particular question, do not attempt it. Inaccurate information is misleading and mischievous. The work of correspondents for the present season will be much lighter than during last year, as each circular will be sent out at a considerably earlier date, thus allowing fully double the time previously available for collecting the information and filling in the answers. To aid you in answering future questions, it is suggested that you make use of every opportunity to keep posted on farming matters in your township, question your neighbors whenever you meet them, as to their acreage, prospects, &c., and make notes of their statements. This will render the work of filling circulars a very easy one. You cannot too strongly impress on your neighbors the fact that the questions asked have no reference to taxation. Assessors will not see the answers, nor could they use them, if they did. The information is desired solely for the benefit of farmers, by enabling them to know the state of their business in each part of the Province, and to induce immigration. The annual report of this Department, now being prepared, will be sent you as soon as issued, and also the crop bulletins and other publications of the Department, as published from time to time. Should circumstances arise to prevent your continuing to act as correspondent, please do not fail to answer the questions now sent, and in returning this circular filled in, kindly give the name and post office address of some other resident in the same township, willing or likely to carry on the work. Please be particular to report only for the township for which you have been appointed, and which is mentioned at the head of the enclosed circular. This circular should be mailed back without fail on 1st June, in the envelope enclosed herewith, which will be transmitted, postage free, if not sealed up. The value of your services will depend on promptitude, as unless answers are mailed as directed they will not arrive in time for tabulation. To be of practical service, the complete returns for the Province should be issued from this Department in printed form by the middle of June. Do not mislay this circular, but keep it in a conspicuous place till filled up. Two copies are sent you, so that you can retain one for future reference. Please accept the sincere wishes of the Department for a prosperous season."

The following questions were asked:—

"Live Stock.—1. What is the general condition? 2. Has any disease prevailed among them? If so, of what nature and with what results? 3. Were they generally housed during the winter? 4. Was there a sufficiency of fodder?"

"Weather and Prospects.—1. Has the weather, during seeding, been wet or dry, favorable or unfavorable? 2. What are the present appearances and prospects of the crops? 3. What is the condition of the clover and hay meadows?"

"Fall Wheat.—1. Has any fall wheat been sown? If so, give number of acres and prospects. 2. To what extent has it been injured (if any) and state the causes? 3. Do you think fall wheat can be successfully grown in Manitoba?"

"1883 Surplus.—1. What percentage of the 1883 wheat crop is still in farmers' hands? 2. What percentage of the oat crop is still in farmers' hands?"

"Ploughing.—Give the total number of acres of: 1. Fall ploughing, 1883. 2. Spring ploughing, 1884. 3. Total ground ploughed. 4. What date did spring ploughing commence?"

"Spring Seeding and Planting.—The following questions were asked separately in regard to the crops of wheat, oats, barley, field peas, flax, field potatoes, field turnips, field beets, field mangolds, and field carrots. 1. Number of acres sown. 2. Date seeding began. 3. Date seeding ended or will end. 4. Quantity sown per acre. 5. Name of variety of seed sown.

"What percentage of frozen wheat has been used for seed (if any)?"

"Is tree-planting receiving any attention, and if so, what is being done?"

The second circular was issued on 15th May, to be filled up and mailed back to the Department on 1st July. Its introductory remarks were almost the same as in the first circular above quoted. The following questions were asked:—

"Weather, Crops, &c.—1. Describe the weather during June, mentioning the rainfall, frosts, warmth, &c., and generally the favorableness or unfavorableness of the season for crops. 2. What are the general prospects of grain and root crops? 3. Mention any crops suffering from insect pests, and describe the pests. 4. What are the condition and prospects of prairie hay and clover? 5. About when will haying begin? 6. If noxious weeds are prevalent, mention the varieties and state if the law as to their destruction is observed.

"General Farming.—1. What branches, if any, of mixed farming are being adopted? 2. Give the number of farmers in the township, i. e., the number occupying separate farms. 3. State the average number of acres occupied by each farm.

"Live Stock.—1. If any disease is prevalent, mention it. 2. State the total number of each variety of live stock, viz.:—horses, cattle, sheep and pigs.

"Horses.—1. To what extent is horse breeding carried on? 2. State the number of stallions, and their breed? 3. What are the principal breeds of horses kept?

"Cattle.—1. To what extent is cattle raising carried on? 2. What are the breeds kept? 3. What is the proportion of grades and thoroughbreds? 4. Is dairy farming practised, and to what extent? 5. Is cheese made, other than for farmers' own use?

"Sheep.—1. What are the principal breeds of sheep kept? 2. Is there any reason why sheep farming should not be profitable in your district?

"Pigs.—1. What are the principal breeds of pigs kept? 2. Is any considerable quantity of pork raised over what is required for farmers' own use?

"Poultry, &c.—1. Is poultry, including fowls, geese and ducks, generally kept, and with what success? 2. What means are generally adopted for housing poultry in winter? 3. By what animals, if any, are poultry being destroyed? 4. Are wild bees plentiful?

"Labor.—1. What demand is there likely to be for farm labourers this season? 2. Between what dates will they get steady employment? 3. What will be the average wages per month, with board? 4. Is the supply of female domestic servants equal to the demand, and what is the average rate of wages per month?

"Prairie Fires and Timber.—1. What damage has been done by prairie fires this season? 2. Name the different varieties of timber growing in your township. 3. How long will the present supply of timber in the township be sufficient for fuel and fencing?"

The third circular was issued on 15th June, to be filled up and mailed back to the Department on 1st August. Correspondents were informed in it that a copy of Mr. C. N. Bell's pamphlet, "Our Northern Waters," had been mailed to all who had answered the second circular, and also reports of the speeches delivered by the Hon. Mr. Norquay and Mr. Greenway, during the discussion on the Budget at the then recent session of the Legislative Assembly. Crop bulletin No. 6 was mailed to correspondents with the third circular, and a copy of the Manual of the Acts relating to the Department, as amended and consolidated, was forwarded a few days later. The following questions were asked in the third circular:—

Weather, &c.—Describe the weather during July, mentioning the rainfall, frosts, warmth, &c., and generally the favourableness or unfavourableness of the season for the growth of crops and for haying.

"Haying, &c.—1. What date did haying begin? 2. State generally the quality and condition of the hay crop this season? 3. If any cultivated grasses or clovers have been sown, give the names of the varieties, number of acres sown, when sown, and present appearances and prospects.

"Grain and Root Crops.—1. State generally the prospects for the various crops and the probable yields, whether over or under an average per acre? 2. Is the harvest likely to be early or late, and about what date will it commence? 3. Are any crops suffering from the attacks of insects or other pests? If so, state what crops are affected and describe the pest as clearly as possible.

"Ploughing.—State amount of prairie broken fresh this spring and not cropped, in acres, and date when new ploughing ended or will end.

"Live Stock.—If there is any disease, mention it.

"Farm Lands.—1. What is the average cash value of improved land in your township? 2. What is the average cash value of unimproved land? 3. What proportion of the land in the township is unoccupied or non-resident?

"Threshers.—Give the names and addresses of all persons in your township owning or operating threshing machines, and of any persons who are likely to take machines into the township to thresh with. This list is required to send them circulars from."

The fourth circular was issued on 15th July, to be filled up and mailed back to the Department on 15th September. The following questions were asked:—

"Weather.—Describe the weather during August and first two weeks of September, mentioning generally the rainfall, temperature, &c., and suitability for growth and harvest.

"Hay.—1. State generally its quality and the condition in which it was saved? 2. State the total number of tons of prairie grass saved, with the average yield per acre. 3. State the total number of tons of cultivated grasses and clover saved, with the average yield per acre.

"Grain Harvest.—The following questions were asked separately as to wheat, barley, oats, flax and peas:—1. Date harvest commenced. 2. Date harvest ended or will end. 3. Average yield per acre in bushels. 4. Comparative quality. 5. State generally the quality of the grains, and the extent to which they have been injured, if at all. 6. State the date of ripening and the average yield in bushels per acre of the following varieties of wheat, viz.:—Red Fyfe, White Fyfe, White Russian, Golden Drop and Lost Nation.

"Field Roots.—1. State generally the condition of field potatoes and roots, and their probable quality. 2. What will be the probable yield per acre in bushels of potatoes, turnips, mangolds, carrots and beets.

"Labor.—Has the supply of farm laborers been equal to the demand?

"Hops.—1. Do native hops grow wild in your township, and if so, are they picked and sold? 2. Are hops cultivated in your township, and if so, with what success? 3. Do you think hop growing can be made a paying industry in Manitoba?

"Fruits.—1. What are the principal wild varieties in your township? 2. Have they been plentiful or scarce this season? 3. What fruits are cultivated, and what has been the success with them?

"Game.—1. Are prairie chickens and wild ducks as plentiful as, or more plentiful than, last year? 2. Is the law for their protection being generally observed? 3. Are hares, or rabbits, as they are popularly called here, numerous? 4. Have they done any damage, and if so, of what nature?

"Mills.—Give the names and post office addresses of persons in your township operating flouring or grist mills. If no mill in the township, state those nearest."

Owing to the unusual lateness of the season, harvest operations had not been completed when the fourth circular was filled up and returned to the Department, on 15th September. In order, therefore, to secure later and more complete returns, a fifth circular was issued, on 27th September, correspondents being asked to fill it up and return it as soon as possible. It was prefixed by the following remarks:—

"I am directed by the Minister to inform you that it is his desire to obtain some particulars in reference to this season's harvest, in addition to those contained in the circular returned by you to this Department on the 15th instant. When that circular was issued to you, on 15th July, and you were asked to return it on 15th September, it was anticipated that the harvest would be completed by about the same average date as in previous seasons, in which case the date fixed for the return of the circular would have been quite late enough to have obtained full returns. Unfortunately, this year, owing to unfavourable weather during the latter part of August and early part of the current month, some of the grain had not been cut and much more had not been stacked on the 15th instant. I am therefore to ask that you will oblige by answering the questions on the back hereof, and mail this form back to the Department at an early date as possible after its receipt by you. It will be transmitted, postage free, if enclosed, unsealed, in the envelope sent herewith. Two copies are sent, so that you may retain one for future reference. You will observe that some of

the questions were asked you in the last circular; but as they could not be answered with a sufficient degree of certainty at that date, they are now repeated. The bulletin based on the replies to this circular will be issued at as early a date as possible in October, and a copy will be mailed you."

The following questions were asked, separately, as to wheat, barley and oats:—
 "1. Date cutting actually ended. 2. Date stacking ended. 3. Average yield per acre in bushels. 4. Comparative quality. 5. State generally the quality of the various grains, and the manner in which they have been injured, if at all. 6. State the percentage of each grain damaged by rain, hail, frost, rust, smut, sprouting and shrinkage."

On 1st September a card-board form was issued to the owners of all threshing machines, whose names could be ascertained, as follows:—

"I am directed by the Minister to inform you that the Department is desirous of ascertaining the average yield of wheat, barley and oats grown in Manitoba this year. This can only be obtained with perfect accuracy from persons operating threshing machines. The Department has already secured returns of the acreage under crop, and by getting actual results from threshers, the total product of the Province can be calculated with correctness. You will greatly assist the Department in the important work in which it is engaged by marking down inside this card the results on each farm for which you thresh, being particular to give the number of acres on which the grain was grown, and the total number of bushels produced. Do not give simply the best yields, but all work done, without selection of better or worse. Make a separate entry for each farm up to 29th November, on which date please mail this card back to the Department in the enclosed envelope. It will be transmitted postage free if left unsealed. A copy of the annual report of this Department will be sent you as soon as printed."

The inside pages of the form contained columns for the number of acres and bushels threshed of wheat, barley and oats, respectively.

On 20th November a circular was sent to each owner of threshing machines, to whom the card-board form had previously been mailed, requesting the return of that form promptly on 1st December, and asking for the following information:—

"1. The general quality of the wheat threshed and any way in which it may have been damaged. 2. Percentage of grain damaged, if any, by frost, rust, smut, sprouting, and shrinkage, respectively."

On 15th October a circular was sent to the various flour and grist mill proprietors, asking particulars as to their process, capacity, &c. The circular also contained the following questions:—

"1. State generally the quality of the wheat of this season's growth which has passed through your hands by purchase, or for gristing, what damage, if any, it has received, and by what means. In case of damage by rain, mention the percentage damaged. 2. State what percentage of wheat, if any, has been injured by frost this season, distinguishing between slightly damaged and severely damaged."

The following table shows the date on which each circular to crop correspondents was issued, the number of townships represented by correspondents to which it was addressed, the date on which its return was asked for, the number of townships represented by the answers received, and the consecutive number of each bulletin in which the answers were consolidated, with the date of its issue.

Date of Circular.	Number of Townships issued to.	Date Answers returnable.	Number of Townships answered from.	Consecutive No. of Bulletin, with Date of Issue.
April 15.....	475	June 1.....	355	No. 6, June 17.
May 15.....	485	July 1.....	325	" 7, July 15.
June 15.....	442	August 1.....	285	" 8, Aug. 15.
July 15.....	460	September 15.....	250	" 9, Oct. 31.
September 27.....	440	Immediately.....	180	" 9, Oct. 31.

It will be observed that the number of townships to which circulars were sent decreased slightly from the first issue, owing, principally, to some townships having proved to be unsettled, and in other cases to correspondents not being obtainable. For the fourth circular correspondents were obtained in several townships not represented at the time of previous issues. The large number of answers sent in to the first circular was not attained to for any of its successors, and this will probably be the case each season, time during the summer and harvest being more valuable to farmers than immediately after seeding, when they have sufficient leisure to perform their duties as correspondents with but little inconvenience.

The facts contained in the bulletins, in addition to being based on the replies of crop correspondents to the questions of the various circulars, have been furnished from fifty-three meteorological stations, eleven of which are entirely under the control of the Dominion Meteorological Service, the other forty-two comprising the weather service of this Department, which has two stations at which observations of temperature, wind, cloud, rain and snow are made three-times daily, the other stations of its service being confined to rain and snow observations. The operations of the Veterinary Sanitary Service of the Department, which is composed of a consulting veterinarian and eleven district veterinarians, were included in the remarks made in the bulletins, from time to time, on the diseases of animals.

VALUE OF THE CROP BULLETINS.

The value of the crop bulletins issued by the Department consists principally in the promptness and frequency with which they are published; the disinterested and impartial manner in which they are prepared; their accuracy, and their extensive circulation. As to their promptness and accuracy, it must be borne in mind that they are published at stated intervals, from June to October in each year. In the spring the area under various crops is ascertained; during the summer the progress of the growth, and any damage which may occur, is carefully ascertained; and in autumn the result of the harvest and its lessons are given. The last is probably the most important of the series, as it is issued when accurate information as to the condition and yield is most needed, to enable the producer and the legitimate dealer to decide as to the supply and value of the crop. To this class the information is of immense value, and is universally appreciated, except, as was the case in 1883, by a milling company which sought to monopolize the market, but whose attempts to control it, through misrepresentation and foundationless telegrams, were thoroughly neutralized by the early and reliable information published in the bulletin issued immediately after the harvest.

The bulletins are prepared in a thoroughly disinterested and impartial manner. There is no personal object to serve in their compilation, the idea being to give a simple, plain and unvarnished statement of the facts, regardless of the interests of speculators or dealers. These classes may profit by the reliable information given as to the yield and supply, but they cannot control the opinions expressed or secure the suppression of facts to suit their purposes. The opinions expressed are not those of this Department or any of its officers, but are simply a compilation of the distinct opinions of nearly four hundred practical farmers, of sound judgment, each one of whom is situated in a separate township, and who resides in the township for which he corresponds. The names and addresses of these correspondents are published from time to time, so that the public have an opportunity to judge of their standing and reliability.

The accuracy, or, rather, the near approach to accuracy, of the bulletins, is probably their most important feature. No crop statistics in the world are strictly accurate. Even in Great Britain, where every man who occupies a farm is asked to make individual returns to the Agricultural Department of the Privy Council, perfect accuracy is not secured, as thousands of farmers do not respond to the circulars sent them. Where land is thus unrepresented, estimates have to be made by the Department. It must further be borne in mind that the statements as to average yields in Great Britain are simply estimates, and no means are taken to secure verifi-

cation by the results of the threshing. In the United States, where a most elaborate and, in most respects, very perfect system, is carried on, under the control of the National Department of Agriculture, only estimates of the yield are obtained. Several States of the American Union, particularly Illinois, Ohio, Kansas, Indiana and Michigan, have State systems of statistics, generally under the control of the State board of agriculture, but as far as can be ascertained the figures in regard to the averages in all these States are simply estimated, except in Ohio, where verification is secured through the threshers. In Manitoba, the Illinois system, the oldest individual State system, has been followed to a considerable extent, but there has been added to it the improvement adopted in Ohio, by securing returns from threshers late in the fall. Results obtained by this means are as perfect as can be secured. They are more accurate than the general crop statistics, and this must be borne in mind in making comparison of the average yields. The aim of this Department is to obtain the assistance and co-operation of a practical farmer in each settled township in the Province. Good progress has been made during 1884, many townships which were unrepresented in 1883 having been reported on, and it is hoped that during 1885 a still further advance will be attained, so that in a year or two, at the latest, not a settled township in the Province will be without its correspondent in regular communication with the Department. By this means no estimates for unreported townships will have to be made by the Department. The system on which these estimates have been made in the past will be explained later on in this report, from a perusal of which it will be seen that the estimates are probably rather under than over the actual figures. As a proof of the care with which the particulars of the average yields are prepared, the crop for 1883 may be referred to. After the harvest the crop correspondents of the Department estimated the average yield throughout the Province at 23.69 bushels per acre. The threshers' returns, subsequently sent in, on being averaged, gave 21.80 bushels per acre. The examiners of the Canadian Pacific Railway Company's Land Department visited each farm along the line sold by the company, and made a minute survey with the chain. They found the acreage in wheat on these farms in Manitoba to be 14,805 acres, yielding 332,892 bushels, an average of 22.55 bushels per acre. The closeness of the estimate to the actual measurements by threshers and land examiners bears tribute to the faithful manner in which the various classes performed their work.

By the extensive circulation of the crop bulletins Manitoba has been brought more prominently before the public throughout the world than by any means previously adopted. The Department has succeeded in establishing a thorough system of national exchanges, by means of which the bulletins of the Department are put in the hands of the statistical authorities in nearly every European country, as well as throughout the American continent, the result being that the figures relating to Manitoba are given in nearly every statistical and agricultural publication of any importance. In the report for 1884, of the Agricultural Department of the Imperial Privy Council, Manitoba was the only Province of which full figures as to acreage yield of crops, and the number of live stock, were given. The newspaper press is regularly supplied with bulletins, and as a result, throughout Canada and Great Britain, as well as in many portions of the United States, it teems with references to and extracts from the bulletins. A large individual enquiry is made for these publications, many requests for which are received by mail, especially from intending settlers, and from railway and financial circles.

The arrangement made in 1883 with the Dominion Department of Agriculture, by which a grant of \$2,500 was made by that Department so as to assist in the work of collecting agricultural statistics carried on by this Department, was continued during 1884, and will, no doubt, be renewed for 1885.

AGRICULTURAL CORRESPONDENTS.

It is only fitting to refer to the important work which has been performed by the several hundred crop correspondents of the Department who have, without any remuneration whatever, and, no doubt, at the sacrifice of considerable time and con-

venience, reported for their various townships. To their zeal and assistance the Department is indebted for the means of being able to place before the public, monthly, during the season, accurate opinions as to the state of the crops and other matters relating to the great agricultural industry. These correspondents have rendered an important service to the Province and are deserving of the thanks of every member of the community. The following is a list of the correspondents who have acted, together with a statement of the number of reports sent in by each:—

Range 1, West—

Township 1 & 2.	M. Long, Gretna.....	1
3.	Otto Schultz, Gretna.....	2
4.	John Brown, Morris.....	5
8.	W. H. Mellow, Blythfield.....	3
9.	Robert Griffith, Blythfield.....	3
10.	Pierre Lavallée, St. François Xavier	4
13.	Charles Stewart, Hanlan.....	4
15.	Henry Last, Stonewall.....	4
16.	Fred. W. Robertson, Stonewall.....	4
17.	Lachlan Collie, Stonewall.....	5
18, 19 & 20.	J. H. Fingland, Oak Point.....	4

Range 2, West—

Township 4.	Wm. Stephenson, Morris.....	1
10.	Wm. Campbell, St. François Xavier.....	1
11.	Thos. Lumsden, St. François Xavier.....	2
14.	J. H. McGuire, Woodlands.....	2
15.	Henry Stodgell, Woodlands.....	2
	J. A. Fraser, Woodlands.....	2

Range 3, West—

Townships 1, 2 & 3.	H. T. Hansen, Morden.....	5
4.	Thos. English, Pomeroy.....	1
	Thos. Alexander, Lowestoft.....	3
5.	Adam Boyle, Lowestoft.....	5
6.	James Morison, Salterville.....	3
11.	Duncan McDonell, Baie St. Paul.....	4
13.	W. M. Champion, Reaburn.....	5
15.	Frank Upjohn, Lake Francis.....	5

Range 4, West—

Township 3.	Jarvis Mott, Nelson.....	3
4.	Samuel Lowery, Warrington.....	5
5.	W. J. Brown, Pomeroy.....	3
6.	Richard McKnight, Carman.....	5
10.	James Mercer, Baie St. Paul.....	2
13.	Copland Cowlard, Ossowo.....	5
14.	Charles F. Newman, Ossowo	4
15.	Charles Hoard, Lake Francis.....	3
18.	Henry Yardley, Oak Point.....	4

Range 5, West—

Township 1.	Chas. F. Heckles, Stodderville.....	3
2.	James Wilson, Stodderville	5
3.	D. J. McCuish, Minnewasta.....	4
5.	Andrew Riddle, Lintraden.....	4
6.	Stanley T. Carr, Campbellville.....	4
7.	Richard Grant, Carman City.....	3
12.	George Hunt, Assiniboine	3
18.	Chas. E. Breault, Oak Point.....	4

Range 6, West—

Township	2. Archibald Baie, Alexandria.....	3
	3. Thos. Gilmour, Thornhill.....	4
	4. John George, Nelson.....	5
	5. R. P. Thompson, Miami.....	5
	6. Benjamin McGill, Lintrathen.....	5
	7. Wm. D. Sweeney, Campbellville.....	5
	11. J. I. Burgess, Portage la Prairie.....	4
	12. Adam Scott, Portage la Prairie.....	3
	13. A. J. Green, Portage la Prairie (Box 287).....	3

Range 7, West—

Township	1. W. C. Pound, Mowbray.....	4
	2. Wm. Hood, Alexandria.....	4
	3. Jos. Haskins, jun., Thornhill.....	1
	4. Wm. Compton, Opawaka.....	4
	5. Samuel Umphrey, Miami.....	5
	6. Thos. Renwick, Lintrathen.....	4
	7. George Smith, Campbellville.....	5
	11. Arch. A. Watson, Portage la Prairie.....	1
	12. Thos. E. Wallace, Portage la Prairie.....	1
	F. A. Brydon, Portage la Prairie.....	3
	13. T. H. Metcalfe, Oakland.....	4
	14. Thos. Huddleston, Oakland.....	5

Range 8, West—

Township	1. Andrew Johnstone, Mowbray.....	4
	2. Joseph Tees, Pembina Crossing.....	3
	3. Robert Owens, Manitou.....	5
	4. Wm. Shields, Newhaven.....	4
	5. W. J. Snowdon, Lorne.....	4
	7. Thomas C. Forbes, Treherne.....	4
	8. George Forbes, Treherne.....	4
	9. H. A. Sturton, Indianford.....	3
	11. Mathew Ferris, Burnside.....	1
	12. Wm. Kittson, Burnside.....	2
	13. Thos. McCartney, Portage la Prairie.....	5
	14. Donald Stewart, Totogan.....	4

Range 9, West—

Township	1. A. F. Manning, Snowflake.....	5
	2. W. D. Ruttan, Ruttanville.....	3
	4. Robt. N. Baldwin, Archibald.....	3
	4. R. G. O'Mally, St. Leon.....	3
	6. Charles Wright, Beaconsfield.....	4
	9. Herbert Sturton, Indianford.....	4
	12. Adam Smith, Burnside.....	5
	13. A. E. Smalley, Westbourne.....	2
	16. John J. Lackey, Totogan.....	4

Range 10, West—

Township	1. James McWilliams, Snowflake.....	2
	2. Thomas Hagyard, Ruttanville.....	5
	3. Robert Armstrong, Silver Spring.....	5
	5. George B. Gordon, Swan Lake.....	4
	6. John B. Ashby, Norquay.....	2
	8. R. J. Warren, Olive.....	3
	12. John B. Young, Beaver Creek.....	5
	13. John McKelvey, Wellington.....	5
	14. Donald Morison, Woodside.....	5
	16. Joseph Wellwood, Totogan.....	4

Range 11, West—

Township	1. John Elson, Crystal City.....	5
	3. R. J. Preston, Preston.....	3
	5. R. C. McLaren, Swan Lake.....	3
	6. John Hall, Norquay.....	4
	7. Arthur C. Holland, Holland.....	5
	8. Thomas Sanderson, Camille.....	1
	10. James Leckie, Austin.....	5
	Robert McGregor, Austin.....	4
	12. John Duncan, Austin.....	4
	13. David McConnell, Golden Stream.....	2
	15. R. McIlvanie, Gladstone.....	3

Range 12, West—

Township	1. G. G. Downs, Crystal City.....	3
	2. James Laidlaw, Clearwater.....	1
	3. R. S. Thompson, Marrinhurst.....	5
	4. W. E. Tisdale, Marrinhurst.....	4
	6. George T. Mawby, Littleton.....	5
	8. R. H. Little, Littleton.....	3
	10. T. L. S. Roseberry, Carberry.....	3
	11. Alf. Pickering, Austin Station.....	5
	12. Thos. Babb, Sydney.....	3
	13. G. F. Slade, Gladstone.....	5
	14. Jno. Ferguson, Gladstone (Box 50).....	1
	15. John S. Duncan, Gladstone.....	3
	J. M. Jamieson, Gladstone.....	2
	16. James Anderson, Richmond.....	3
	17. Wm. Copeland, Richmond.....	3

Range 13, West—

Township	2. James Cavers, Clearwater.....	4
	4. Wm. Dungey, Otenaw.....	5
	5. A. W. Playfair, Otenaw.....	5
	6. George W. Cramer, Otenaw.....	4
	7. James B. Gowanlock, Littleton.....	1
	Wm. B. Thomas, Littleton.....	4
	11. G. B. Murphy, Melbourne.....	4
	14. G. S. McGregor, Mekiwin.....	5
	15. Thomas Lowdon, Mekiwin.....	1
	16. Alexander McKenzie, Blake.....	5

Range 14, West—

Township	1. Maurice Dunsford, Cartwright.....	5
	2. J. Wesley Clark, Cartwright.....	4
	3. Alexander Kelso, Roseberry.....	4
	6. S. Christopherson, Grund.....	4
	7. James Duncan, Glenboro'.....	5
	11. W. W. Ford, Carberry.....	1
	13. J. W. Newton, Wellwood.....	5
	14. John Hunter, Neepawa.....	4
	15. Robert Riddle, Salisbury.....	5
	16. James Tennant, Orange Ridge.....	5
	17. Wm. Babcock, Orange Ridge.....	5

Range 15, West—

Township	1. R. T. Stead, Cartwright.....	4
	3. James D. Orr, Cartwright.....	5
	4. Alexander Henderson, Glendinning.....	5
	6. J. George Sturgeon, Stockton.....	5
	7. Wm. Cox, Stockton.....	7

Range 15, West—

Township	8. Ed. H. Dewart, Millford.....	2
	10. Charles Lowes, Carberry.....	4
	11. Robert Hope, Carberry.....	4
	12. James A. McDonell, Montrose.....	2
	13. Robert Connell, Osprey.....	3
	15. James Watson, Neepawa.....	4
	16. Wm. F. Gardiner, Eden.....	5
	17. John Grover, Eden.....	3

Range 16, West—

Township	1. F. W. Stone, Smith's Hill.....	1
	2. J. R. Armstrong, Smith's Hill.....	3
	4. Henry Mason, Glendinning.....	5
	5. T. R. Trotter, Ninette.....	5
	6. Daniel Wilson, Millford (Box 75).....	4
	7. Alex. Naismith, Millford.....	4
	8. Frank Burnett, Millford.....	1
	9. Jos. H. Ruttan, Two Rivers.....	5
	12. John Mitchell, Brookdale.....	4
	14. Robert Dunsmore, Glendale.....	4
	15. Robert Campbell, Bridge Creek.....	4
	16. George Jackson, Neepawa.....	4

Range 17, West—

Township	5. R. H. Smith, Langvale.....	3
	6. Edward Davies, Langvale.....	3
	8. George Stewart, Stratherne.....	3
	11. W. G. Mather, Douglas.....	1
	12. John Shouldin, Elton.....	3
	13. Thomas J. Connell, Creelford.....	5
	14. Francis Rose, Minnedosa.....	3
	15. Hugh Sanderson, Minnedosa.....	4
	16. Samuel Burgess, Murchison.....	3
	17. George B. Hilliard, Clanwilliam.....	4

Range 18, West—

Township	1. John A. Rawsome, Wakopa.....	5
	2. Charles Gregory, Wakopa.....	1
	4. Ingram Bill, Langvale.....	3
	5. Hugh McMillan, Langvale.....	3
	6. Wm. A. Lang, Langvale.....	2
	7. W. W. Henderson, Rounthwaite.....	4
	8. Samuel Rounthwaite, Rounthwaite.....	2
	9. Rev. George Roddick, Brandon Hills.....	5
	10. John Leech, Brandon.....	4
	12. George Davidson, Rapid City.....	5
	13. Wm. Pearson, Rapid City (Box 69).....	4
	14. John Wake, Minnedosa.....	3
	15. David Hamilton, Odanah.....	3
	16. Andrew Cook, Clanwilliam.....	2

Range 19, West—

Township	1. Wm. Henderson, Wakopa.....	3
	3. Thomas E. Rockey, Desford.....	4
	4. J. T. Cooper, Bayfield.....	2
	5. S. A. Heaslip, Heaslip.....	5
	7. A. H. Carroll, Carrollton.....	3
	9. D. D. Young, Brandon (Box 108).....	4
	10. J. W. Sifton, Brandon.....	5
	12. W. C. Cottingham, Rapid City.....	4

Range 19, West—

Township 13.	J. S. McKay, Rapid City (Box 99).....	4
14.	J. H. Martin, Rapid City.....	5
15.	John Rose, Cadurcis.....	4
	P. L. McDougall, Cadurcis.....	3
16.	J. C. McCormick, Fairmont.....	4

Range 20, West—

Township 2.	William Smith, Desford.....	5
4.	George C. Wright, Sheppardville.....	4
5.	Robert Sheppard, Sheppardville.....	3
6.	Thomas J. McGill, Carrollton.....	5
7.	George McGill, Carrollton.....	5
8.	John E. Smith, Beresford.....	3
10.	Charles Ffolliott, Brandon (Box 117).....	4
11.	William R. Johnstone, Brandon (Box 92).....	3
12.	J. Priestly, Brandon.....	4
13.	James W. Shanks, Rapid City.....	4
14.	David Dick, Moline.....	5
16.	F. N. DeWitt, Newdale.....	3

Range 21, West—

Township 3.	J. A. Brondgeest, Turtle Mountain.....	4
4.	Thomas Dougall, Turtle Mountain.....	4
	E. B. Madill, Sheppardville.....	3
5.	Thomas Code, Sheppardville.....	4
6.	John A. Mair, Souris.....	4
10.	George Cheasley, Pultenay.....	3
12.	Douglas Ayr, Lothair.....	4
13.	Joseph C. Henry, Oak River.....	4
15.	George F. Cook, Newdale.....	2

Range 22, West—

Township 2.	John Renton, Deloraine.....	4
3.	J. D. Hanson, Turtle Mountains.....	5
4.	John H. Cope, Deloraine.....	3
5.	D. Gibson, Souris.....	3
6.	James Barclay, Souris.....	4
7.	John Wenman, Souris.....	5
10.	G. M. Yeomans, Griswold.....	5
11.	Robert Kerr, Lothair.....	1
12.	Robt. Chisholm, Lothair.....	3
13.	Neil McDonald, Wheatland.....	3
14.	C. F. Haight, Oak River.....	4
16.	W. Pringle Johnston, Marney.....	2
	Stewart Geekie, Marney.....	1
17.	John E. Menzies, Strathclair.....	3

Range 23, West—

Township 1.	D. S. McLeod, Deloraine.....	3
2.	Hammill Gage, Deloraine.....	3
3.	S. W. Stevens, Deloraine.....	4
5.	John M. Fee, Melgund.....	4
6.	Jame H. Hartney, Souris.....	3
7.	James Winter, Monteith.....	5
9.	Robert Sutherland, Oak Lake.....	4
11.	F. W. Stevenson, Griswold.....	2
12.	John Parr, Lothair.....	3
13.	Allan Leslie, Hamilton.....	4
15.	Thomas Grierson, Viola Dale.....	3
16.	Thos. Parkinson, Shoal Lake.....	2

Range 23, West—

Township 17.	Jas. Findlay, Shoal Lake	5
18.	John Menzies, Oakburn	3
19.	Andrew Gardner, Oakburn	

Range 24, West—

Township 1.	A. T. Rose, Deloraine	3
2.	A. B. Estlin, Deloraine	4
	H. J. Newman, Deloraine	3
3.	Neil A. Haggert, Deloraine	3
5.	Robt. T. Logan, Melgund	4
6.	Henry D. Smith, Melgund	3
8.	Archibald Malcolm, Oak Lake	4
9.	Robert Lang, Oak Lake	3
10.	James Speirs, Oak Lake	3
11.	Thomas Frame, Virden	4
12.	Thos. Brandon, Ralphtown	4
14.	J. L. Fraser, Chumah	3
15.	George Robertson, Viola Dale	1
	Frank Avery, Viola Dale	2
16.	Andrew Marshall, Shoal Lake	2
17.	Chas. Findlay, Shoal Lake	5
18.	David D. Hood, Toddburn	2
19.	William McDonald, Rossburn	5

Range 25, West—

Township 1.	W. E. Spencer, Waskado	4
2.	Elisha B. Turner, Deloraine	3
3.	Oliver Smith, Menota	4
4.	J. S. Yeomans, Napinka	3
5.	Henry Pollock, Napinka	4
7.	John Taylor, Bellevue	4
8.	J. W. Macfee, Oak Lake	4
9.	Hamilton R. Foot, Oak Lake	5
10.	John Spiers, Oak Lake	5
11.	Peter A. Leask, Virden	4
13.	John Fleming, Arrow River	4
14.	Jas. S. Torrance, Beulah	5
15.	John A. Fraser, Orrwald	5
16.	Reuben Burdette, Birtle	1
17.	Robt. Nelson, Birtle	2
18.	Wm. Todd, Toddburn	4
19.	R. R. Ross, Rossburn	1
	Thos. Young, Rossburn	2
20.	George Manson, Rossburn	3
	C. Lawford, Rossburn	2
	Wm. Manson, Rossburn	2
21.	A. G. Wakefield, Rossburn	4

Range 26, West—

Township 2.	W. H. Sheffield, Waskado	3
3.	Oct. Pope, Menota	4
4.	Donald Morrison, Napinka	5
5.	Jas. A. Kitchenson, Menota	4
7.	Wm. Lothair, Pipestone	5
8.	John Short Roe, Virden	5
9.	John Power, Virden	4
10.	A. G. McDougall, Virden	5
11.	Thos. Tapp, Virden	4
12.	John Joslin, Virden (Box 28)	4



Range 26, West—

Township 13. James Elliott, Arrow River.....	1
15. Geo. H. Rowsell, Beulah.....	4
16. Alfred Morton, Birtle.....	4
17. John M. Laurie, Birtle.....	1
18. John M. Dow, Toddburn.....	4
19. S. F. Burgess, Toddburn.....	5
20. Robert Brunt, Silver Creek.....	4

Range 27, West—

Township 1. John A. McKague, Sourisford.....	1
W. J. S. Atkinson, Sourisford.....	2
2. Alfred Gould, Sourisford.....	5
3. R. M. Graham, Manchester.....	4
4. Mike McConnell, Manchester.....	4
7. P. A. S. Milliken, Pipestone.....	5
8. W. H. Anderson, Manda.....	2
9. Charles Milburn, Virden.....	3
11. Walter Garlick, Virden.....	3
12. H. A. Scarth, Virden.....	1
13. H. M. Power, Elkhorn.....	2
14. H. Bogart, Beulah.....	1
15. W. A. Doyle, Beulah.....	5
16. S. W. Chambers, Birtle.....	4
18. Francis Robbie, Birtle.....	5
19. E. T. Williams, Binscarth.....	4
20. Wm. S. Crear, Silver Creek.....	5
21. Peter Hyde, Silver Creek.....	5
22. John Muir, Miniska.....	5
23. John B. Lennard, Shell River.....	1

Range 28, West—

Township 1. George Rose, Sourisford.....	2
Andrew Gyle, Sourisford.....	2
2. David Shirriff, Sourisford.....	5
8. John Grimmett, Elm Valley, <i>via</i> Virden.....	4
10. W. L. Gifford, Elkhorn.....	1
12. John Freeman, Elkhorn.....	5
13. George Allison, Elkhorn.....	4
14. Robt. J. Anderson, DeClare.....	3
15. O. F. Orr, DeClare.....	4
16. Jno. C. Wilkinson, Birtle.....	2
17. Emerson Bligh, Fort Ellice.....	3
18. John Fletcher, Fort Ellice.....	3
19. Geo. L. Smellie, Binscarth.....	4
20. W. C. DeBalinhardt, Shell River.....	2
21. Edward Field, Shell River.....	2
23. Henry Gill, Assisippi.....	1
24. R. J. Brooks, Assisippi.....	5

Range 29, West—

Township 1. Joseph Dunn, Menota.....	4
10. Robert E. Leggo, Verden.....	4
14. Wm. Kennaird, DeClare.....	3
John Brennard, DeClare.....	2
15. John Traquair, Beaver Rapids.....	5
16. James Stephen, Beaver Rapids.....	2
17. Wm. Cosgrove, Fort Ellice.....	3
18. Robert Bligh, Fort Ellice.....	2
19. Thomas H. Clement, Binscarth.....	3

Range 29, West—

Township 20.	Robert H. McCallum, Shell River.....	4
21.	Benj. H. Haworth, Russell.....	3
22.	W. S. Wallace, Shell River.....	4
23.	Robt. Denmark, Shell River.....	4
24.	Alex. McKenzie, Rossburn.....	2
26.	Robert B. Johnston, Assissippi.....	5
27.	Dugald Marshall, Assissippi.....	3

Range 1, East—

Township	1. J. S. Ireland, West Lynne.....	3
	2. John Fraser, Gauthier.....	4
	3. W. E. Bissonette, St. Jean Baptiste.....	1
	4. S. J. Callum, Morris.....	4
	5. James Swain, Morris.....	1
	C. C. Sheffington, Morris.....	1
	R. K. Taylor, Morris.....	2
	6. D. M. Ure, Morris.....	1
	7. Cornelius Wheatland, Donore.....	5
	8. George Parker, Blythfield.....	2

Headingley—

	W. B. Hall, Headingley.....	4
12.	Rev. T. L. Helliwell, Rosser Station.....	3
13.	A. G. McKenzie, Stonewall.....	1
	Alex. Irwin, Stonewall.....	4
14.	F. H. Allen, Stonewall.....	3
15.	Jacob Scott, Stonewall.....	4
16.	J. H. Slater, Balmoral.....	4

Range 2, East—

Township	1. Donald Fraser, Emerson.....	4
	6. D. G. Lowe, St. Agathe.....	4
	7. Ernest Bernier, St. Agathe.....	5
	12. Valentine Lawrence, Winnipeg.....	5
	13. Robert Bell, Stonewall.....	4
	14. James Graham, Wavy Bank.....	1
	Andrew Hunter, Wavy Bank.....	4
	15. Wm. Andrew, Balmoral.....	4
	16. Wm. McNeil, Foxton.....	3
	17. James Madill, Foxton.....	5

Range 3, East—

Township	1. Jos. E. Robinson, Emerson.....	3
	3. Wm. Ginn, Arnaud.....	2
	4. John Q. Summer, Arnaud.....	5

St. Boniface—

	Victor Mager, St. Boniface.....	2
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Kildonan—

	W. C. Pritchard, Kildonan.....	3
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St. Paul—

	John Hopper, Middlechurch.....	4
	Charles Johnstone, St. Andrews.....	2
17.	John Teskey, Foxton.....	3
18, 19, 20.	F. Fridriksson, Gimli.....	2

Range 4, East—

Township	2. Wm. Foulds, Green Ridge.....	5
	3. Colin Campbell, Arnaud.....	3
	4. Charles H. Dubois, Joly.....	3
	7. Thomas W. Craven, Niverville.....	4
	9. Henry Coutre, Lorette.....	2

Range 4, East—

Township 10. Henry McQuade, Prairie Grove.....	1
11. Henry Jickling, Springfield.....	2
12. John C. Burton, Bird's Hill.....	1

St. Andrews, N—

George Ross, St. Andrews.....	4
15. R. J. T. Muckle, Clandeboye	4

Range 5, East—

Township 9. R. R. Keam, Lorette.....	5
A. Gauthier, Lorette.....	2
10. Edward Hudson, Plympton.....	4
11. A. Paterson, Sunnyside.....	2
14. J. E. Gemmell, Selkirk.....	4

Range 6, East—

Township 2. E. J. Ramsay, Dominion City	4
7. John R. McIntyre, Clear Springs.....	4
10. C. B. Edie, Millbrook.....	3
11. Lawrence McDermott, Dundee.....	4
13. Thomas Pierson, Beauséjour.....	4
15. Joseph Monkman, Pegs.....	5

Range 7, East—

Township 7. Josiah Cohoe, Clear Springs.....	5
8. Theophile Paré, St. Anne.....	1
9. David Chalmers, Richland.....	4

Range 8, East—

Township 7. H. Granger, LaBroquerie.....	2
8. C. Tauffenback, St. Anne.....	4
13. Robert Cowan, Beauséjour.....	4

Range 9, East—

Township 9. Joseph St. Onge, St. Anne.....	3
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Following the system adopted in other places for statistical purposes, the Province has been divided into three groups—the eastern, western and central. The eastern group comprises the counties of Manchester, Morris, Carillon, D'Iberville, Lorette, Selkirk, Lisgar and Gimli. The central, the counties of Dufferin, Marquette, Portage la Prairie, Rock Lake, Norfolk, Beautiful Plains and Westbourne; and the western, the counties of Russell, Shoal Lake, Minnedosa, Dennis, Brandon, Souris River and Turtle Mountain.

ESTIMATES.

Careful estimates are made where townships have not been reported for, owing to its having been impossible to obtain correspondents, or from other causes. The plan adopted is to multiply the number of townships from which no reports have been received by one-half the township averages for the county in which they are situated. One-half the averages are taken as a basis, as in the majority of cases the townships unreported are the most newly settled ones, and consequently possessing the smallest acreage under crop. A system of estimates is followed in all places where statistics are gathered, it being found impossible to obtain information covering the whole country. The agricultural statistics of Great Britain, though among the most perfect, are largely made up of estimates. The same may also be said of the systems carried out in the several states of the American Union where statistics are prepared. Until a correspondent can be found for every township in the Province, estimates will have to continue to be made, so as to enable comprehensive and accurate returns to be prepared.

PLOWING.

It is evident that the farmers are becoming more fully alive to the necessity that exists of getting the largest possible amount of their ploughing done in the fall. On comparing the figures given for 1883 with those received of the work done in the

fall of 1882, it is found that the increase was over 200 per cent., showing the total acreage which was prepared for crop during the fall of 1883 to be 212,553 acres. The acreage, too, ploughed in the spring of 1884, for crop the same season, also shows an increase of over 200 per cent., the total being 232,357 acres. The average date when spring ploughing began throughout the Province was 23th April, being about a week later than in 1883. The 104,026 acres of new land broken for the first time, in 1884, falls short of that reported in 1883 by less than 2 per cent. It was generally predicted by correspondents, in the early part of the season, that a diminished acreage would be broken. The dry weather of June was somewhat against breaking operations, but no complaints of any importance were made. The lack of railway communication in some of the south and south-western counties, remote from the main line of the Canadian Pacific Railway, tended to lessen the area in breaking; but it is gratifying to find that the western group had so large an acreage, despite the drawbacks complained of. The date when breaking generally ended was 16th July, though in some places it was continuing on 1st August, the date on which reports were received, which was about the same date as it ended in 1883. Correspondents in many places have expressed themselves very clearly on the subject of summer following and fall ploughing for successful crop growing. Mr. D. Shirriff, of Township 2, Range 28, west, said:—"Any of our crops that are ripening so unevenly are upon spring ploughing, which convinces us that we must have our ploughing done in the fall, so that we may be in a position to take advantage of early seeding, and have our crops above ground before the ground dries up." Mr. S. J. Collum, of Township 4, Range 1, east, said:—"Crops on summer fallow this year will average much better than old land, and more free from weeds." Mr. John E. Smith, of Township 8, Range 20, west, in writing on the same subject, said:—"Late sowing will not do. Spring ploughing for crop is of no use. Summer fallowing must be done, in order to kill noxious weeds and wild buckwheat." These are but a few of the many who have written in a similar strain as to the advantages of having the ground ready to receive the crop as soon as the snow leaves. Unfortunately, the fall of 1884 has been rather a short one, but no doubt a large amount of fall ploughing has been done. From all that has been gathered, it is clear that a great many farmers are turning their attention to summer fallowing, which accounts, in a measure, for the lessened acreage under some crops in several of the townships heard from. It has been found that fallowing goes a long way, if not altogether, towards destroying the noxious weeds that have sprung up so thickly in many localities. It has also been found to make a more solid bottom on which to grow wheat and other cereals, besides being capable of retaining moisture for a longer time during the usually dry month of May. Experience has shown that farmers must give more attention to this mode of farming if they wish to meet with the success which thorough farming in this Province ensures. In the older Provinces fallowing is invariably followed out, and the results prove the wisdom of the course. Let it be hoped that farmers will study their own interests, and cultivate their land to the best possible advantage. Indeed, the limited time left for fall ploughing this last fall, and the possibilities of the recurrence of a similar state of affairs, shows that even the certainty of being able to do a sufficiency of fall ploughing is very doubtful. The summer months afford ample time for preparing a large amount of ground for spring sowing; and with what could be done in the fall, little or none should be left unploughed till spring. A severe lesson has been learnt by a great many this season, by having grain sown on spring ploughing caught by frost and rain. Let those parties see to it that a similar experience may not be in store for them again.

In the fall of 1883, 212,553 acres were ploughed throughout the Province, of which 54,216 acres were in the eastern group, 61,166 in the central and 97,176 in the western. Of the 232,357 acres ploughed in the spring of 1884 for crop, 88,788 were in the eastern group, 85,368 in the central and 58,201 in the western group. The county of Dufferin, in the central group, shows the highest individual amount, its area being 69,530 acres. The county of Carillon, in the eastern group, shows the smallest area, being but 732 acres. April 25 was the average date when ploughing began in the

eastern group, and May 1 in the central and western groups. Of the 104,026 acres of new breaking, the eastern group had 13,036 acres, the central 29,108 and the western 61,882. The county of Brandon, in the western group, had the largest individual amount broken (21,793 acres). The county of Carillon, in the eastern group, had the smallest (212 acres.) The dates when breaking ended in the different groups varied but little, the central being slightly the earliest.

PLOUGHING.

COUNTIES.	PLOUGHING.			BREAKING.	
	Fall Ploughing 1883.	Spring Ploughing for Crop, 1884.	Average Date Spring Ploughing began.	New Breaking, 1884.	Average Date Breaking ended.
	Acres.	Acres.		Acres.	
Eastern group:—					
Carillon	160	572	April 23...	212	July 26
D'Iberville	837	2,710	do 25...	480	do 16
Lorette	2,618	5,359	do 29...	607	do 18
Lisgar	16,101	18,011	May 3...	1,768	do 25
Manchester	22,660	34,915	April 20...	8,538	do 13
Morris	7,875	8,155	May 1...	714	do 15
Selkirk	4,915	19,068	do 3...	717	do 16
Totals for group	54,216	88,788		13,036	
Averages for group			April 25...		July 18
Central group:—					
Beautiful Plains	4,227	4,369	April 19...	2,631	July 13
Dufferin	25,708	43,822	do 19...	6,869	do 17
Marquette	378	1,872	May 7...	715	do 6
Norfolk	10,315	9,802	April 19...	9,593	do 16
Portage la Prairie	7,351	9,355	May 5...	3,030	do 14
Rock Lake	10,690	13,635	April 22...	5,550	do 21
Westbourne	2,497	2,433	do 17...	720	do 13
Totals for group	61,166	85,368		29,108	
Averages for group			May 1...		July 14
Western group:—					
Brandon	46,911	16,263	May 10...	21,793	July 16
Dennis	14,738	7,375	April 23...	12,260	do 20
Minnedosa	8,503	11,442	do 17...	5,188	do 16
Russell	3,352	4,130	do 18...	1,979	do 16
Shoal Lake	8,290	9,182	do 17...	5,943	do 17
Souris River	4,755	2,965	do 11...	4,260	do 15
Turtle Mountain	10,625	6,842	do 15...	10,459	do 19
Totals for group	97,176	58,261		61,882	
Averages for group			May 1...		July 17
Grand Totals for groups	212,558	232,357		104,026	
do Averages for groups			April 28...		July 16

GRASSES, HAY, &c.

On 1st June, when the answers to the first series of questions for the season, addressed to correspondents, were received, the general appearance of the hay and clover meadows, considering the very dry weather of May, was exceedingly encouraging. In some places frost interfered, to a considerable extent, in destroying clover, but the cases were very few. The reports of the condition of timothy meadows varied from "poor" to "promising," "good," and "splendid." Native hay was promising, and, taken altogether, there did not appear to be any reason to doubt that a good crop would be secured. From nearly every point a surplus of old

hay was reported. On 1st July, the prospects for a good yield of prairie hay were reported as very encouraging, but the dryness of the early part of the season caused the crop to be short and light in many instances where the land was high, but where it was low and damp there was a better yield. From only two townships, of the many heard from, were signs of a scarcity reported, viz., one in Shoal Lake and one in Souris River. Timothy and clover were doing better than in the earlier stages of the season, but their prospects were not so encouraging as those of prairie hay. Every hope was expressed of there being a yield equal to that of 1883. On 1st August the crop was reported largely benefited by the rains of July. A plentiful crop was looked forward to, and fears of any scarcity were not expressed. The general quality was reported good, though some had been somewhat bleached by the rains of the last few days of July. As low-lying meadows were, in some places, too wet to enter on 1st August, a considerable quantity of hay was allowed to remain uncut until farther on in the season, farmers feeling that, in the meantime, the quantity would be improved, and the meadows would dry up. On 15th September the reports did not speak so assuringly of the abundance of the crop, though fears of a scarcity were only reported from three points, two in Rock Lake and one in Lorette. Where the crops were secured before the heavy rains of the last few days of July and first few days of August, no complaints were made of its condition, but a considerable quantity caught by those rains was more or less bleached. That portion of the crop saved during July was reported to be in good condition, but that put up during the early part of August was not so good, on account of the frequent rains having caught a portion of it. With the exception of the counties of Rock Lake, Norfolk, Brandon and Lisgar, the average quality of the crop was pronounced excellent, and quite equal to that of previous years. The average condition was reported good from the following counties in the eastern group: Carillon, D'Iberville and Lorette; in the central group, from Dufferin, Portage la Prairie and Westbourne, and in the western group, from Denuis, Russell, Shoal Lake, Souris River and Minnedosa. In the remaining counties in the different groups the condition falls somewhat below those specially mentioned. Cultivated grasses and clovers are not grown to a very large extent, as a glance at the following table will show, but the acreage shows an increase of 50 per cent. over that of 1883. The season has been an unfavorable one for cultivated grasses, through the drought of the early portion of it. Seed sown in the spring of 1884 was materially affected by the drought in many places, but in others the prospects seemed more encouraging. Hungarian grass and millet were favorably spoken of on 1st August, and their general appearance and prospects were good. The total number of acres under cultivated grasses and clovers was 4,994, with a yield of 6,632 tons; the average yield per acre throughout the Province being 1.29 tons. The following table shows the several varieties of grasses sown, the number of townships from which each was reported, and the number of acres in each county of all the varieties taken together. The eastern group shows an area of 1,072 acres, with a total tonnage of 1,126 tons; the central group, 2,595 acres, with a tonnage of 3,735; and the western group, 1,327 acres, with 1,771 tons. The average date on which haying began was 20th July, the average date on which it began in the different counties varying very triflingly. Of prairie hay, the eastern group had 49,022 tons saved, the average yield per acre being 1.45 tons; the central group had 83,574 tons, with an average yield of 1.91 tons, and the western group, 94,507 tons, with an average yield of 1.82 tons. The total amount saved in prairie hay and cultivated grasses was 233,735 tons, an increase over 1883 of over 10,000 tons. In prairie hay the central group had the highest average yield per acre, being 1.91 tons, while the western and eastern groups had 1.82 and 1.45 respectively, the average yield throughout the Province being 1.73 tons to the acre. In cultivated grasses, timothy has been reported from 96 townships, clover from 15, Hungarian grass from 6, orchard grass from 1, Alaska clover from 2, white Dutch clover from 1, Lucerne from 1, and millet from 5.

COUNTIES.	CULTIVATED GRASSES AND CLOVERS.								PRAIRIE HAY.		CULTIVATED GRASSES AND CLOVERS.		Total Tonnage saved.
	Varieties, and number of Townships reported from.								Average date Haying began.	Tonnage saved.	Average yield per Acre in tons.	Tonnage saved.	
	Timothy.	Clover.	Hungarian Grass.	Orchard Grass.	Alsike Clover.	White Dutch Clover.	Lucerne.	Millet.					
<i>Eastern Group—</i>													
Carillon.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	July 26...	1,488	1.50	1,488
D'Arville.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	do 20...	4,050	1.13	4,050
Lorette.....	3 1	.....	.....	.....	.....	.....	.....	.....	160	do 20...	10,523	1.60	10,769
Lisgar.....	3 3	.....	.....	.....	.....	.....	.....	.....	80	do 19...	11,368	1.97	11,488
Manchester.....	2 2	.....	.....	.....	.....	.....	.....	.....	180	do 19...	8,387	1.60	8,612
Morris.....	2 2	.....	.....	.....	.....	.....	.....	.....	210	do 20...	1,200	1.13	1,515
Selkirk.....	3 2	.....	.....	.....	.....	.....	.....	.....	452	do 15...	12,000	1.25	12,226
Totals for group.....	13 3	.....	.....	.....	.....	.....	.....	.....	1,072	.....	49,022	.....	50,148
Averages for group.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	July 20...	.....	1.45	.....
<i>Central Group—</i>													
Beautiful Plains.....	2	.....	.....	.....	.....	.....	.....	.....	55	July 20...	7,815	1.84	7,884
Dufferin.....	10	.....	.....	.....	.....	.....	.....	.....	719	do 20...	27,839	1.81	28,824
Marquette.....	2	.....	.....	.....	.....	.....	.....	.....	9	do 20...	7,095	1.98	7,109
Norfolk.....	8	.....	.....	.....	.....	.....	.....	.....	359	do 21...	14,113	2.08	14,760
Portage la Prairie.....	3	.....	.....	.....	.....	.....	.....	.....	758	do 20...	12,970	2.06	14,107
Rock Lake.....	11	.....	.....	.....	.....	.....	.....	.....	695	do 21...	10,622	1.70	11,505
Westbourne.....	2	.....	.....	.....	.....	.....	.....	.....	.....	do 19...	3,120	.....	3,120
Totals for group.....	38	.....	.....	.....	.....	.....	.....	.....	2,595	.....	83,574	.....	87,309
Averages for group.....	.....	.....	.....	.....	.....	.....	.....	.....	.....	July 20...	.....	1.91	.....
<i>Western Group—</i>													
Brandon.....	11	1	.....	.....	.....	.....	.....	.....	317	July 21...	38,086	1.22	38,666
Dennis.....	6	3	.....	.....	.....	.....	.....	.....	194	do 21...	11,330	1.90	11,524

HAY AND CLOVER—Concluded.

COUNTIES.	CULTIVATED GRASSES AND CLOVERS.										PRAIRIE HAY.		CULTIVATED GRASSES AND CLOVERS.		Total Tonnage saved.
	Varieties, and number of Townships reported from									Average date Haying began.	Tonnage saved.	Average yield per Acre in tons.	Tonnage saved.	Average yield per Acre in tons.	
	Timothy.	Clover.	Hungarian Grass.	Orchard Grass.	Alsike Clo-ver.	White Dutch Clover.	Lucerne.	Millet.	Number of Acres sown.						
Minedosa.....	7	2	1	1	1	1	1	1	400	do	21...	12,261	532	1.33	12,793
Russell.....	4	1	1	1	1	1	1	1	232	do	23...	6,876	232	1.60	7,108
Shoal Lake.....	8	2	1	1	1	1	1	1	112	do	19...	11,086	140	1.25	11,226
Souris River.....	5	2	1	1	1	1	1	1	36	do	20...	6,804	48	1.33	6,852
Turtle Mountain.....	5	1	1	1	1	1	1	1	36	do	23...	8,064	45	1.25	8,109
Totals for group	45	12	1	1	1	1	1	4	1,327	.....	.....	94,507	1,771	.....	96,278
Averages for group .....	.....	.....	.....	.....	.....	.....	.....	.....	.....	July 21...	.....	.....	.....	1.28	.....
	96	15	6	1	2	1	1	5	4,994	.....	.....	227,103	6,632	.....	233,735
	.....	.....	.....	.....	.....	.....	.....	.....	.....	July 20...	.....	.....	.....	1.29	.....

WHEAT.

Reports received on 1st June, with very few exceptions, spoke encouragingly of the wheat crop. The experiences of 1883 gave farmers to understand that more attention had to be paid to fall ploughing and early seeding, and as a result the greater part of the crop of 1884 was sown from seven to ten days earlier than in 1883. Fall-ploughed land being capable of retaining moisture for a much longer period than spring ploughed, the advantages to the crop put in on fall ploughing were evident during the dry month of May which followed. The crop was reported from several points, though not suffering, to be in want of rain to give it fresh impetus. In 198 townships the average of frozen wheat sown was 50 per cent. Though almost all the seed sown was more or less touched by frost, it was of that quality which graded No. 1, frozen. When the reports were received on 1st June, no perceptible differences were observable in the fields where frozen and unfrozen seed had been sown side by side. A few, in fact, reported the frosted seed as looking better than what had not been touched by frost. From only one point, viz., Township 2, Range 10, west, did the report come that the seed had failed to germinate and had to be resown. From all points the feeling was expressed that fall ploughing is necessary for successful wheat raising, as it secures early seeding, a good and substantial bottom for the grain, a sufficiency of moisture during the usually dry month of May, and also early harvesting, which has come to be looked upon as so very important. On 1st July, the early sown wheat was in every case reported to be in excellent condition, it having obtained a good start before the dry weather of the latter part of May and the early part of June set in. The later sown, however, was not reported so promising, having come up in some places very unevenly. Where sown on fall ploughing the growth and appearance were described as being far better than where sown on spring ploughing, because the grain had the advantage of the moisture caused by the frost coming out of the ground, besides having a more solid and smoother bed, the grain came up more evenly. The prospects were of a promising nature and the indications pointed to a full average crop. The growth was reported several days ahead of that of 1883, and every hope was entertained of there being no danger to fear from frost if the ripening season should prove favourable. On 1st August, the most encouraging reports were received of the early sown crop from all parts of the Province. Of the later sown on spring ploughing, the complaints were repeated of its coming up unevenly, its prospects being much less encouraging. This fact caused correspondents everywhere to testify to the great benefits crops receive from being sown on fall ploughing. A marked and rapid growth was observable in the crop during July, and the cool weather caused the grain to fill well and become plump and solid. In the western and central groups of counties, where the crop was earliest sown, the returns promised to be larger than that of the eastern group; and in both the former a full average crop was expected. The counties of Norfolk, Beautiful Plains, Minnedosa, Shoal Lake, Rock Lake and Souris River promised more than an average crop. While the eastern group of counties did not promise an average, in several townships "average" and "over average" yields were looked for; estimates of probable individual township yields varying from 20 to 40 bushels per acre were expected, and 25 bushels per acre was the very general approximate average yield spoken of. The weather, for some days after these later reports had been received, was of the most favourable nature for maturing and hastening the ripening of the crop, and farmers had every promise of a most abundant harvest. A change for the worse, however, took place towards the end of August, which continued during the first half of September, and in consequence harvesting operations had not nearly been completed by the middle of the latter month, the date on which, in ordinary seasons, full returns of the result should be received by the Department. The yield and quality of wheat in 1884 both fall below 1883. The losses sustained were principally from rain and hail, and also from shrinkage, occasioned by the grain being cut too green in many places. These losses account largely for the falling off in the average yields. A percentage of sprouted grain, occasioned by wet, accounts for the difference in the quality. The fear of early frosts, and uneven growth were the cause of a large amount of grain being cut in a partially

unripe condition, which resulted in so much shrinkage. Frost also injured the crop in the western group. In the central group the losses from frost were much less. In the eastern group the losses sustained were principally from rain, which shelled out a large percentage of the grain standing ripe, and caused that which was cut and stacked, in some cases, to sprout. Rust and smut were each only mentioned from one point in this group, and frost was not mentioned. In the central group, where the hailstorm of 27th and 28th August appears to have been general, its ravages were plainly seen. In each of the counties there were townships that escaped unburnt, so that the losses did not cover the whole of each county. The rain, during the first two weeks of September, though not so great as that in the eastern group, caused considerable damage, by shelling and sprouting the grain. The losses from shrinkage are attributable to cutting the grain on the green side, but this loss was not so great as in the other groups, the harvest being earlier. With the exceptions of Marquette and Portage la Prairie, smut was mentioned in all the counties in the group. Rust was also mentioned from one point in the group, viz., Township 4, Range 16, west, but the percentage of loss was very trifling. Frost was only reported from two counties in the group, Beautiful Plains and Rock Lake. The date of the frost that did the damage in Rock Lake was 22nd August. In the western group damage from the several causes was more general. The harvest being later than in the central group, the loss from frost was more severe. The counties of Russell, Dennis and Shoal Lake suffered most from this cause. In Russell and Shoal Lake, every township heard from suffered to a greater or less degree, while in the county of Dennis only a few of the townships suffered injury. In Souris River the losses from rain were general and severe. A large loss from shrinkage occurred in the county of Russell. Minnedosa was reported free from smut. Rust was only reported from one township in each of the counties of Russell and Shoal Lake.

Appended to the remarks under this head is a table containing the various statistics gathered in reference to the wheat crop. Of the 1883 crop a little over 14 per cent. was held by farmers on 1st June, 1884. The amount in farmers hands 1st June, 1883, was 11.2 per cent. An area of 307,020 acres was sown with wheat in 1884, of which the eastern group had 77,361 acres, the central 118,661 acres; and the western 110,998 acres. The total acreage showed an increase of nearly 50 per cent. over 1883, which was 208,674 acres. The averages dates of beginning and ending of seeding throughout the Provinces were, 24th April and 17th May, respectively. The dates in the western group were each five days earlier than those of the central, which was again equally far in advance of the eastern. The average quantity sown per acre was 1.80 bushels; with but slight differences in the several groups. The quantity sown per acre in 1883 was 1.87 bushels. Of the varieties of seed sown, Red Fyfe was reported in 242 townships; Fyfe in 36; Lost Nation in 6; Red Chaff in 2; Golden Drop in 20; White Fyfe in 34; and White Russian in 18. The average dates on which cuttings began and ended were 28th August and 22nd September. Very slight differences existed in the dates of the harvesting season, as compared with 1883, throughout the Province; in both cases the season being much later than usual. Of the dates in the different groups, those of the central were somewhat earlier than the eastern and western. The average date when stacking ended was 30th September. Cutting being earlier in the central than in the other groups, the date of stacking was also correspondingly earlier. The average yield per acre for the Province, as estimated by correspondents, on 1st October, was 21.84 bushels, as compared with an estimate by correspondents in 1883, of 23.69 bushels. The average in the western group was estimated at 23.22 bushels per acre, in the central at 22.90, and in the eastern at 19.41. The average yield per acre was furnished by threshers, under a system explained further on in this report, for all counties except Carillon and D'Iberville, in the eastern group, and Marquette in the central. The highest individual county average was that of Dennis, in the western group, 23.35 bushels per acre; the lowest, Lorette, in the eastern groups, 10.75. As a group, the average was highest in the western, being 21.57 bushels per acre; the central being next, with 19.77, and the eastern the lowest, with

26. The average for the Province was 19.80 bushels per acre, being little more than 2 bushels below the average given for the Province by crop correspondents.

An estimate of the aggregate yield in bushels of the 1884 wheat crop for the Province, calculated on the threshers' returns, show a total yield of 6,076,122 bushels, of which 1,335,255 bushels were in the eastern group, 2,346,387 in the central, and 2,394,480 in the western. In the three counties, already mentioned, from which no returns were received from threshers, the estimate was based on the correspondents' estimated averages. The county of Brandon, in the western group, which possessed the largest acreage under crop, showed also the largest county yield, viz., 1,025,180 bushels. The county of Carillon, in the eastern, showed the smallest county yield, its acreage under crop being also the smallest. With the exception of the county of Russell, the averages of the threshers' returns, in every case, fell short of the estimate furnished by crop correspondents in the different counties. In the eastern group the averages of the threshers' returns fell below the estimates of crop correspondents by 2.15 bushels per acre, in the central by 3.13, and in the western by 1.65. The difference throughout the Province was 2.04 bushels per acre.

The farmers of the Province have to wake up in many respects and become acquainted, as far as possible, with what is required of them, to make wheat growing a sure and profitable source of husbandry. The great necessity of summer fallowing for wheat land has been fully brought out. It is quite safe to say that in every case where wheat was sown as early as could be done, on land that was prepared during the summer of 1883, particularly in the western and central groups of counties, the crop was not hurt either by frost or rain. Correspondents invariably spoke, in those two groups of counties, of the early sown wheat being good and well preserved from injury. The early sown, profiting by the moisture contained in the ground, is enabled to hold out more successfully against the drought which generally prevails in May than is that sown later, and on spring ploughing. The part of the crop sown late in the spring of 1884 on spring ploughing, through the effects of a less substantial bed, and of the drought, came up unevenly at first, and when rain, came later on, a second growth started up in many places, which caused uneven ripening; and, in consequence, a portion was prematurely cut and losses from shrinkage were the result. The majority of correspondents remarked that spring ploughing will not do for growing wheat successfully. There is reason to believe that with the means at the disposal of many farmers, a desire exists to cultivate more land than they are able to attend to. Seeding the largest possible acreage does not always imply the most successful farming, and no farmer should attempt to cultivate a larger portion of land than he is comfortably able to do. If farmers will cultivate more, than they are capable of properly attending to, the result must be imperfect work, late seeding and the risks incurred by late harvests. In 1884 frost was more noticeable on land that has been cropped but one or two years, the older and more frequently cultivated fields largely escaping. The average amount of seed sown per acre in 1884 was 1.80 bushels. Through the effects of the drought, and, in some cases, no doubt, imperfect seed, some did not germinate. A feeling prevails that seed should be sown much thicker, thus guarding against the possibility of a certain amount not germinating. Besides, if thickly sown, the grain would not stool out so much, and being thicker, there would be less possibility of weeds springing up, moisture would be retained a longer time in the soil, and the grain would attain to maturity at an earlier date. Considerable damage was reported as having been the result of want of care in looking after the grain that had been cut and stooked, but not stacked, during the rainy season of September. Much of the sprouted grain can be attributed to this cause. Another cause of loss has been undue care in stacking, a point on which farmers cannot learn too much or be too careful. As a considerable portion of the crop was affected by one or another of the causes mentioned, great care should be exercised in selecting seed for sowing in 1885. Smutted and frosted wheat should be particularly guarded against as unfit for seed.

COUNTIES.	Percentage of 1883 crop on hand, 1st June, 1884.	Acres sown, 1884.	AVERAGE DATES SEEDING.		Average bushels sown per acre.
			Began.	Ended.	
<i>Eastern Group—</i>					
Carillon	22	445	April 25...	May 23...	1.5
D'Iberville	22	2,581	May 7...	do 27...	2.0
Lorette	12	3,741	April 28...	do 21...	1.7
Lisgar	19	17,515	May 5...	do 27...	1.8
Manchester	15	35,212	do 2...	do 18...	1.5
Morris	15	10,152	do 1...	do 19...	1.6
Selkirk	11	7,715	April 20...	do 20...	1.9
Total for group		77,361			
Average for group	13.42		May 1...	May 22...	1.7
<i>Central Group—</i>					
Beautiful Plains	14	4,779	April 16...	May 14...	1.9
Dufferin	12	47,653	do 10...	do 2...	1.7
Marquette	22	1,082	May 6...	do 20...	2.0
Norfolk	7	24,000	April 10...	do 15...	1.8
Portage la Prairie	13	20,043	May 5...	do 29...	1.6
Rock Lake	13	16,445	April 21...	do 16...	1.8
Westbourne	20	4,659	do 13...	do 26...	1.8
Total for group		118,661			
Average for group	14.42		April 23...	May 18...	1.85
<i>Western Group—</i>					
Brandon	9	48,449	April 17...	May 19...	1.8
Dennis	15	18,137	do 20...	do 17...	1.8
Minnedosa	18	11,717	do 14...	do 12...	1.9
Russell	18	3,190	do 16...	do 5...	2.1
Shoal Lake	15	11,163	do 22...	do 8...	1.9
Souris River	22	4,924	do 21...	do 13...	1.6
Turtle Mountain	14	13,416	do 17...	do 16...	1.74
Total for group		110,998			
Average for group	15.85		April 18...	May 13...	1.83
Totals for Province		307,020			
Averages for Province	14.56		April 24...	May 17...	1.89

VARIETIES OF SEED AND NO. OF TOWNSHIPS EACH REPORTED FROM.							Frozen Wheat.		AVERAGE DATES CUTTING.		Average date stacking ended.	Estimated average yield per acre, in bushels.	Average yield per acre, in bushels, reported by threshers.	Aggregate yield, in bushels.
Red Fyfe.	Fyfe.	Lost Nation.	Red Chaff.	Golden Drop.	White Fyfe.	White Russian.	No. of townships in which sown.	Average percent- age sown.	Began.	Ended.				
1	.....	.....	.....	.....	.....	.....	2	35	Aug. 22...	Oct. 13...	Oct. 25...	18-00	.....	8,010
3	.....	.....	.....	.....	.....	.....	2	37	Sept. 8...	do 1...	do 13...	20-00	.....	51,620
4	.....	.....	.....	.....	.....	.....	4	64	Aug. 26...	do 1...	do 10...	16-00	10-75	40,215
5	.....	.....	.....	.....	.....	.....	10	56	do 31...	Sept. 29...	do 1...	21-75	18-15	317,897
5	3	.....	.....	.....	.....	.....	1	75	do 21...	do 9...	Sept. 15...	19-66	18-64	656,351
3	1	.....	.....	.....	.....	.....	3	39	do 22...	do 25...	Oct. 10...	19-50	14-06	142,737
8	.....	1	.....	1	1	.....	7	54	do 30...	do 25...	do 1...	21-00	16-25	178,425
29	4	1	.....	1	2	6	29	.....	.....	.....	.....	.....	.....	1,335,255
.....	.....	.....	.....	.....	.....	.....	.....	51	Sept. 4...	Sept. 23...	Sept. 29...	19-41	17-26	.....
7	4	.....	.....	.....	1	.....	9	39	Aug. 19...	Sept. 18...	Sept. 30...	23-75	21-93	104,802
23	.....	.....	.....	.....	6	.....	18	64	do 20...	do 10...	Oct. 1...	22-30	19-25	917,320
6	.....	.....	.....	.....	.....	.....	4	62	do 24...	do 16...	do 2...	22-87	.....	24,745
16	4	.....	.....	1	3	.....	14	65	do 21...	do 15...	do 1...	24-63	21-00	504,000
14	.....	.....	.....	.....	7	.....	12	58	do 22...	do 25...	do 9...	21-50	19-73	395,448
21	.....	.....	.....	7	7	.....	25	60	do 24...	do 21...	Sept. 26...	22-75	18-71	307,685
4	2	.....	.....	.....	1	2	3	36	do 23...	do 13...	do 11...	22-50	19-83	92,387
91	10	.....	.....	8	18	2	85	.....	.....	.....	.....	.....	.....	2,346,387
.....	.....	.....	.....	.....	.....	.....	.....	55	Aug. 22...	Sept. 17...	Sept. 20...	22-90	19-77	.....
17	1	.....	.....	2	.....	2	14	32	Aug. 24...	Oct. 5...	Oct. 10...	25-00	21-16	1,025,180
22	1	.....	.....	.....	1	.....	13	38	do 20...	Sept. 27...	do 3...	24-00	23-35	423,498
13	3	.....	.....	.....	6	.....	13	50	do 24...	do 15...	do 10...	22-50	20-78	243,479
15	5	1	.....	3	1	4	15	62	Sept. 7...	do 20...	do 10...	19-07	20-79	66,320
18	9	3	.....	3	3	.....	20	46	Aug. 31...	do 27...	do 10...	23-50	21-66	241,790
18	1	1	.....	.....	1	3	.....	.....	do 19...	do 26...	do 5...	23-94	22-48	110,691
19	2	.....	2	.....	2	1	9	35	do 22...	do 18...	do 5...	24-50	21-13	283,522
122	22	5	2	11	14	10	84	.....	.....	.....	.....	.....	.....	2,394,480
.....	.....	.....	.....	.....	.....	.....	.....	44	Sept. 1...	Sept. 26...	Oct. 7...	23-22	21-57	.....
242	36	6	2	20	34	18	198	.....	.....	.....	.....	.....	.....	6,076,122
.....	.....	.....	.....	.....	.....	.....	.....	50	Aug. 28...	Sept. 22...	Sept. 30...	21-84	19-80	.....

With a view of ascertaining the variety of wheat which ripened earliest and was most productive, correspondents were asked to give the dates when the different varieties ripened in their townships and the average yields per acre. In the cases of Red and White Fyfe the large majority of correspondents replied, but little was reported of the other varieties. Several simply stated that no particular differences were observable, either in the date of ripening or in yield. Reference to the following table will show that throughout the Province considerable differences exist in the dates of ripening and average yields. In the eastern group of counties, where seeding was latest, the dates of ripening were correspondingly late, and the average yields, with the exception of White Russian and Lost Nation, which were higher, were also lower than those in the central and western groups. The wet, backward weather of the first half of September also retarded the ripening season in the eastern group of counties. The dates of ripening in the central group were all, with the exception of Golden Drop, earlier than in the western group, but the averages, with the exception of Red Fyfe and Golden Drop, were lower. The average dates of the beginning and ending of seeding in the central group were each five days later than in the western. As compared with the averages, by groups and for the Province, shown in the preceding other wheat table, the figures in the following table are greater as respects average yields. This was caused by the reports, on which the following table is based, having been estimated before the full extent of the damage by the wet weather of September was fully known. The injury sustained by the wheat crop will be easily seen by comparing the difference in the averages as given in these two tables.

VARIETIES OF WHEAT SOWN.

Counties.	Red Fyfe.		White Fyfe.		White Russian.		Golden Drop.		Lost Nation.	
	Date of Ripening.	Average Bushels per Acre.	Date of Ripening.	Average Bushels per Acre.	Date of Ripening.	Average Bushels per Acre.	Date of Ripening.	Average Bushels per Acre.	Date of Ripening.	Average Bushels per Acre.
Eastern Group—										
Carillon	Aug. 27	19	.....	.....	.....	.....	Sept. 5	20	.....	.....
D'Iberville	Sept. 9	20	Sept. 4	20	.....	.....	do 15	20	.....	.....
Lorette	Aug. 29	20	.....	.....	.....	.....	Aug. 20	12	.....	.....
Lisgar	Sept. 7	24	Sept. 8	26	Sept. 15	35	do 30	35	Sept. 10	22
Manchester	Aug. 23	21	Aug. 25	20	Aug. 25	20	.....	.....	.....	.....
Morris	do 20	15	.....	.....	.....	.....	.....	.....	.....	.....
Selkirk	do 28	21	.....	.....	Sept. 4	30	.....	.....	Sept. 13	35
Averages for group	Sept. 1	20	Sept. 2	22	Sept. 7	28.33	Aug. 31	21.75	Sept. 11	28.50
Central Group—										
Beautiful Plains	Aug. 21	22	Aug. 16	25	Aug. 20	25	Aug. 15	25	Aug. 15	25
Dufferin	do 24	24	do 24	24	do 25	22	do 20	25	.....	.....
Marquette	do 24	27	do 29	27	.....	.....	.....	.....	.....	.....
Norfolk	do 20	24	do 18	26	.....	.....	.....	.....	.....	.....
Portage la Prairie	do 31	26	do 29	25	Aug. 29	.....	Sept. 2	22	.....	.....
Rock Lake	do 24	25	do 20	20	.....	.....	.....	.....	Aug. 20	21
Westbourne	do 25	20	do 22	27	.....	.....	.....	.....	.....	.....
Averages for group	Aug. 24	23.86	Aug. 22	24.85	Aug. 25	23.50	Aug. 26	24	Aug. 17	23
Western Group—										
Brandon	Aug. 27	24	Aug. 25	.....	Aug. 22	29	Aug. 22	30	.....	.....
Dennis	do 20	24	do 27	25	.....	.....	.....	.....	.....	.....
Minnedosa	do 26	24	do 25	25	.....	.....	Aug. 20	20	.....	.....
Russell	do 27	21	do 26	25	Aug. 31	25	do 25	22	.....	.....
Shoal Lake	Sept. 5	24	Sept. 5	26	do 31	24	do 25	22	Aug. 23	27
Souris River	Aug. 30	24	Aug. 17	22	do 28	26	.....	.....	do 20	25
Turtle Mountain	do 25	24	do 12	28	do 24	25	Aug. 24	25	.....	.....
Averages for group	Aug. 29	23.57	Aug. 24	25.16	Aug. 27	25.80	Aug. 23	23.80	Aug. 22	26
Averages for Province	Aug. 28	22.48	Aug. 29	24	Sept. 3	25.88	Aug. 27	23.18	Sept. 4	25.83

WHEAT INSPECTION AND GRADING.

In response to an enquiry from the Department, Mr. William Clark, who has been recommended by the Winnipeg Board of Trade for appointment by the Dominion Government as chief grain inspector for Manitoba, and who is at present acting in that capacity, kindly furnished the following remarks under date of 25th October, 1884:—"Referring to your request for a report on the quality of this season's wheat crop, I would have preferred to wait some time longer before giving an opinion, as it is as yet too early to form an estimate of the whole. Threshing will not become general till frost stops fall ploughing. Up to the present, many of our best farmers are wisely keeping at the plough. A considerable quantity of grain has, however, been marketed, as tempting prices have been offered to secure as large a quantity as possible for shipment east before the close of navigation. So far, the samples that have come under my notice are, I consider, under the average of Manitoba wheat in a good year, and, I think, under the quality of that part of the crop which escaped the frost of 1883.

"The Manitoba standards for grain are as follows: No. 1 hard spring wheat shall be Red Fyfe wheat, containing not more than 10 per cent. admixture of softer varieties; must be sound, well cleaned, and weigh not less than 60 pounds to the measured Imperial bushel.

"No. 2 hard spring wheat shall be Red Fyfe wheat, containing not more than 10 per cent. admixture of softer varieties; must be sound, reasonably clean, and weigh not less than 58 pounds to the measured Imperial bushel.

"No. 1 spring wheat must be sound, well cleaned, and weigh not less than 60 pounds to the measured Imperial bushel.

"No. 2 spring wheat must be sound, reasonably clean, and weigh not less than 58 pounds to the measured Imperial bushel.

"No. 3 spring wheat shall comprise all wheat fit for warehousing, not class enough for No. 2, and weighing not less than 56 pounds to the measured Imperial bushel.

Rejected spring wheat shall comprise all wheat fit for warehousing, but too low in weight, or otherwise unfit for No. 3.

Note A.—All good wheat which is slightly damp shall be reported "no grade," with the inspector's notation as to quality and condition.

Note B.—All wheat that is in a heating condition or too damp to be considered safe for warehousing, or that has any considerable admixture of foreign grain or seeds, or is badly bin-burnt, whatever grade it might otherwise be, shall be reported "condemned," with inspector's notation as to quality and condition.

Note C.—Wheat containing any admixture of "goose-wheat" shall be graded "rejected."

Note D.—Wheat containing smut or sprouted kernels, in however slight degree, shall, in no case grade in its class as high as No. 1.

"From this you will see that there are six grades of grain fit for warehousing and milling purposes, and you will also see the causes which place grain on 'no grade' or 'condemn' it altogether. You will also note that grain containing smut or sprout cannot grade in its class as high as No. 1. Smut is to be found in a very large proportion of the cars that have already been moved forward, and the same may be said of sprout. These facts prevent such wheat grading higher than No. 2, and in this class the percentage must be very light. If my experience this season, so far, is any indication of what is to follow, No. 1 samples in either the hard or regular class will be extremely scarce; in fact, it is as yet impossible to get a sample of No. 1 regular, as the percentage of the softer varieties in this class gives much more scope to smut so much so, that I am of opinion that it is only the softer varieties that have been attacked with this disease, the Red Fyfe escaping altogether. In the matter of sprout, the softer varieties seem also to have been most affected. This may probably arise from the fact that they are more readily germinated than the Red Fyfe with its flinty kernel. I do not mean that Red Fyfe wheat cannot be hurt from these causes, but the damage done to this class is infinitesimal compared with softer varieties. The rains during harvest have been, of course, the reason for so much sprouted grain in some districts, but I am of opinion that this evil could have been lessened by more care and more labor on the part of the farmer. If the stacks are kept standing and regularly turned, grain, though wet, will rarely sprout; and will, under such weather as in the past fall, dry out; but where stacks or sheaves are blown down and allowed to lie, sprouting will be the inevitable result. From the appearance of many cars this season, it would appear that farmers have not been careful to separate the sprouted sheaves from the sound ones. Had this precaution been taken, many cars graded down on account of sprout would have gone into a higher class. The past season seems to have been favourable to the spread of smut disease, and as the germs remain in the grain it will be necessary for farmers to pickle their seed next spring by using dissolved blue-stone or lime. Smut is probably the miller's worst enemy. If the smut balls are unbroken they can be taken out in the process of cleaning the grain, but if broken the smut gets on the fuzz end of the wheat kernel, and no kind of cleaning will keep the flour from discolouration.

I mention this fact, as it has been reported to me that some farmers have attempted to clean out the smut by first breaking the balls. A considerable quantity of grain came in at the beginning of the season in a damp state, not safe for warehousing, while almost daily cars arrived which had to be condemned on account of smut, sprout, weeds and dampness. I have seen very little frozen grain as yet, and assume the quantity will be small. While smut, sprout and weeds have pulled down our average, another drawback exists in the percentage of light, immature, shrunken kernels, in most samples. This is doubtless the result of second growth, and seems to be very general. Some of the very best lots have to be graded down on account of this drawback. This is all the more to be regretted, as this light grain can be easily cleaned out, and forms excellent chicken and hog feed, and can be made, through such a medium, as profitable to the farmer as the heavy quality marketed. During the last week the quality has been steadily improving, and by another month enough will be seen to determine the average grade. At present the grade of No. 2 regular would represent the average; any improvement on this will be largely due to the care farmers choose to exercise in cleaning and preparing for market. The past season, I am convinced, has not been a good one for quality, whatever may be said of quantity, but the lessons of this year will no doubt have the effect of raising the grade all round in another season, even under moderately adverse climatic conditions.

FALL WHEAT.

The only reports received of fall wheat having been sown were the following:— Township 6, Range 15, west (Rock Lake) 1 acre sown, killed by frost in the fall of 1883. Township 11, Range 17, west (Brandon) 25 acres, good. Township 7, Range 22, west (Brandon) half an acre, failed; not a fair trial, sown too late. Township 13, Range 23, west (Shoal Lake) 1 acre, very poor. Township 19, Range 23, west (Russell), 2 acres, failure; cause not known. Township 15, Range 29, west (Shoal Lake) one and a-half acres, almost all killed by frost. A great diversity of opinion prevails as to the possibility of growing fall wheat successfully in this Province. While a number of correspondents thought it doubtful, more said it could be grown, and others in the same localities said it could not. All agree that they did not think it could be grown on the open prairie. In the eastern part of the Province, where the land is more wooded than in the other portions, the prevailing opinion seemed to be that the grain could be grown, and the same opinion was generally expressed from all parts where sheltered spots could be found for sowing it. Although very little fall wheat has been tried, the reason given by several correspondents for thinking that it could be grown was that where spring wheat got shelled out on the ground during harvest, it came up in the spring looking strong and healthy. Some said that if it were sown early enough in the season it would succeed; more maintained that it would be better to sow it after harvest, giving, as their reasons, their experience with spring wheat that lay in the ground all winter. A number would not express an opinion, but would like to see it tried. There was an increase in the acreage under fall wheat in 1884 over that of 1883, which only amounted to some ten and a-half acres. In 1884 thirty-one acres were reported, and from all that could be gathered, it is possible that a much larger acreage was put under crop in the fall of 1884, as several were proposing to sow. The principal reason given for fall wheat not being more generally sown was, that spring wheat yields so largely and is so successful that farmers have not felt disposed to run any risks from the uncertainties which many felt were likely to follow the sowing of fall wheat. The prevalence of prairie fires, too, has been given as a reason for not sowing. It is hoped that a number have seen fit to try it, and that the question of its suitability for the Province may be more satisfactorily settled.

Mr. John Traquair, who reported fall wheat growing in Township 15, Range 29, west, furnished the following particulars respecting it, under date of 25th, September 1884:—"Regarding the fall wheat, reported by me, it grew on my own farm, so that I can give you a full account of it. I think if it could be kept covered with snow it would be all right. The only living spot in my one and a half acres of

wheat was a corner next a small bluff, over which the snow had blown, and which was so sheltered by the bluff that the snow laid on it for about a week after the rest of the snow was gone. There was a deep furrow up the centre of the ground, in which some growing grain was found. I may say that in the fall it was wheat, which, in Ontario, would have been thought to be in splendid condition for standing the weather, being about 6 inches high. An acre and a-half was sown with Treadwell, one and a-half bushels to the acre, during the last week of August, 1883. It was harvested on 16th, August 1884, the grain being a good plump sample."

OATS.

On 1st June reports spoke generally of this crop as being in want of rain, and a few correspondents spoke of it as suffering severely from drought. With a few exceptions, no complaints were made of the seed sown, but where, in one or two cases, mistakes had been made and frozen seed used the ground had to be re-sown. Unlike frozen wheat, frozen oats do not appear to be fitted for seed, and, consequently, failed where they were tried. On 1st July the crop did not appear to be a very promising one. The reasons given were the dry weather and the poor quality of the seed sown in some cases. In several places, too, it had suffered from grubs, so that circumstances were decidedly against it. Where it was sown early, and good seed used, it was reported promising. The condition of the crop in the eastern group of counties was reported inferior to that in the central and western, on account of the later sowing in the former. Where sown early, it got a fair start before the dry weather came on, but where sown late, it came up unevenly, and, in many cases, failed to germinate at all. In the western and central groups it promised a fair average crop, but in the eastern the prospects were less encouraging. Reports received on 1st August spoke of the crop as having picked up wonderfully during July, and the hopes entertained then were much brighter than at any previous time during the season. The early sown fields looked decidedly promising, and large yields were expected. The later sown, on the other hand, having come up unevenly, was expected to ripen unevenly, and was considered in danger of being caught by frost. The entire crop, as looked on at that date, promised to be below the average throughout the Province. In the western group the prospects were brightest, being slightly better than the central, which was, in turn, somewhat better than the eastern. The estimates of prospective yields in different townships varied from 25 to 75 bushels per acre, but it was generally expected the average yield would fall short of that of 1883. A great deal, of course, depended on the nature of the season that was to follow, as there were evidences of an average crop in very many places if the weather should prove favourable. Reports received from correspondents on 15th September showed that, as compared with 1883, the crop had fallen short in both average yield and quality. In average yield the crop was below that of 1883 by over four bushels per acre. In comparative quality, too, a difference of three existed in favor of the 1883 crop. The dates of the beginning and ending of the oat harvest of 1884 were later than those of 1883 by a few days. This lateness was the result of the incessant rains of the first half of September, which greatly retarded ripening, as well as harvesting after the crop had ripened. Severe losses occurred through wet. In the eastern group the principal losses were from rain, which shelled out a quantity of the grain. Some loss was also sustained from shrinkage. With the exception of the county of Lorette, from which no stated amount of injury was given, although the crop was injured, all the other counties in the group suffered from rain. Five per cent. of loss from frost, and a similar loss from sprouting, were reported from Township 16, Range 1, east, Lisgar. In the central group rain and hail did considerable damage. From the county of Portage la Prairie no damage was reported from any cause. Frost was mentioned from two points each in Dufferin and Rock Lake counties, and from three points in Norfolk. Rock Lake was the only county from which shrunken grain was reported to any extent. In that county it appeared to be pretty general. In the western group every county suffered from frost and corresponding shrinkage. The counties of Russell, Dennis and Shoal Lake were pretty

generally visited, and the losses in many townships embraced large percentages of the yield. In the counties of Brandon, Souris River and Turtle Mountain, the losses were not so large or so general, while in Minnedosa loss was only reported from three points. Rain caused losses in Brandon, Russell, Souris River and Turtle Mountain, but the percentages of damage were small, and were reported from comparatively few points. Early sown grain was invariably pronounced good and free from loss. A great deal of oats sown on spring breaking were hurt, through being late in ripening. This crop, in order to be successful, must be sown early, for every proof required has been given to show that until that be done satisfactory results will not be likely to follow. In the following table are particulars relating to the oat crop. The percentage of the 1883 crop on hand on 1st June, 1884, was somewhat over 28 per cent, as compared with 18.8 per cent. in 1883, the largest percentage being held in the western group. The total area under crop was 133,004 acres, being a falling off from that sown in 1883, 172,345 acres, of 39,341 acres, or over 50 per cent, which may be accounted for by the unsatisfactory prices which were obtainable for the surplus grain in 1883, and the great distances which many had to travel in taking their grain to market. Of the area under crop, 39,054 acres were in the eastern group, 46,050 in the central, and 47,900 in the western. The dates of the beginning and ending of seeding were 2nd May and 26th May, respectively; seeding being completed in the western group some days in advance of the others. The respective dates of the beginning and ending of seeding in 1883 were 25th April and 23rd May. The average amount sown per acre was 2.55 bushels, the largest quantity being sown in the eastern group. In 1883 the quantity sown per acre was 2.58 bushels throughout the Province. In the varieties of seed sown Black Main was reported from 20 townships; White Australian from 3; White Oats from 67; Black from 107; White Poland from 7; White Norway from 6; White Main from 4; White Russian from 11; Black Tartarian from 32, and Black Norway from 1. The average dates of the beginning and ending of harvest were 1st September and 26th September, respectively. The average date when stacking ended was 8th October, there being but a few days' variation in the different groups.

The average yield per acre for the Province, as estimated by correspondents on 1st October, before the results of threshing were known, was 39.95 bushels, as compared with an estimate of 44 bushels by correspondents in 1883. The average in the central group was estimated at 41.65 bushels per acre, in the western at 40.35, and in the eastern at 37.85. The average yield per acre was furnished by threshers for all counties except Carillon and D'Iberville, in the eastern group, and Marquette in the central. The highest individual county average was that of Dennis, in the western group, 40.42 bushels per acre; the lowest, Lorette, in the eastern group, 15.03. As a group, the average was highest in the western, 32.51 bushels per acre; the central being next, with 30.50, and the eastern the lowest, with 27.80. The average for the Province was 30.41 bushels per acre, being 9.40 bushels less than the average estimated for the Province by crop correspondents before the results of the threshing were known. In every county the average of the threshers' returns fell short of the estimates furnished by crop correspondents. In the eastern group the difference was 10.05 bushels per acre, in the central 11.15, and in the western 7.84. An estimate of the aggregate yield in bushels of the 1884 crop for the Province, calculated on the threshers' returns, shows a total product of 4,048,217 bushels, of which 1,086,038 bushels were in the eastern group, 1,404,835 in the central, and 1,557,294 in the western. In the three counties from which no returns were received from threshers, the estimate was based on the crop correspondents' estimated averages. The county of Brandon, in the western group, which possessed the largest acreage under crop, showed also the largest county yield; viz., 549,585 bushels. The county of Carillon, in the eastern, showed the smallest county yield, 6,902 bushels, its acreage under crop being also the smallest.

COUNTIES.	Percentage of 1883 crop on hand, 1st June, 1884.	Average sown 1884.	AVERAGE DATE SEEDING.		Average bushels sown per acre.
			Began.	Ended.	
<i>Eastern Group—</i>					
Carillon.....		203		May 28	2.12
D'Iberville.....	27	1,572	May 12	June 3	3.08
Lorette.....	24	2,556	do 12	May 31	2.50
Lisgar.....	30	8,638	do 9	do 25	2.60
Manchester.....	34	12,816	do 6	do 26	2.20
Morris.....	20	6,062	do 6	June 1	2.67
Selkirk.....	17	7,207	do 8	May 26	2.80
Totals for group.....		39,054			
Averages for group.....	21.71		May 9	June 1	2.57
<i>Central Group—</i>					
Beautiful Plains.....	30	2,788	May 6	May 22	3.28
Dufferin.....	27	13,315	April 20	do 27	2.56
Marquette.....	33	1,086	May 9	do 15	2.75
Norfolk.....	26	11,468	do 9	do 29	2.45
Portage la Prairie.....	22	7,444	do 7	do 27	2.54
Rock Lake.....	30	8,173	April 24	do 23	2.60
Westbourne.....	43	1,776	May 18	do 2	2.81
Totals for group.....		46,050			
Averages for group.....	30.15		May 2	May 24	2.71
<i>Western Group—</i>					
Brandon.....	21	16,771	April 24	May 24	2.60
Dennis.....	29	6,460	do 20	do 21	2.40
Minnedosa.....	37	7,115	do 17	do 15	2.75
Russell.....	35	2,404	do 27	do 12	2.73
Shoal Lake.....	44	6,305	do 24	do 21	1.60
Souris River.....	42	3,599	May 6	do 17	2.35
Turtle Mountain.....	29	5,246	April 30	do 20	2.28
Totals for group.....		47,900			
Averages for group.....	33.85		April 29	May 19	2.38
Totals for Province.....		133,004			
Averages for Province.....	28.57		May 2	May 26	2.55

VARIETIES OF SEED AND NO. OF TOWNSHIPS
EACH REPORTED FROM.

									AVERAGE DATES CUTTING.		Average date stacking ended.	Estimated Average Yield per acre, in bushels.	Average Yield per acre, in bushels, reported by the Threshers.	Aggregate Yield in bushels.
Black Main.	White Austrian.	White.	Black.	White Poland.	White Norway.	White Main.	White Russian.	Black Tartarian.	Began.	Ended.				
.....	.....	1	.....	.....	.....	.....	.....	1	Sept. 5	.....	.....	31-00	.....	6,902
.....	.....	1	.....	.....	.....	.....	2	4	do 8	Oct. 4	Oct. 16	40-00	.....	62,889
1	4	3	1	.....	.....	.....	.....	.....	Aug. 30	do 12	do 18	29-00	15-03	33,416
.....	.....	.....	.....	.....	.....	1	1	.....	Sept. 6	Sept. 23	do 2	36-00	29-05	250,933
.....	.....	3	1	.....	.....	.....	.....	.....	Aug. 21	do 30	do 6	43-00	32-26	413,444
1	1	1	1	.....	.....	.....	.....	1	do 31	do 27	do 6	40-00	27-92	169,251
.....	.....	.....	.....	.....	.....	.....	.....	.....	Sept. 5	Oct. 5	do 13	43-00	20-01	144,212
2	.....	11	5	2	.....	1	3	6	.....	.....	.....	.....	.....	1,086,038
.....	.....	.....	.....	.....	.....	.....	.....	.....	Aug. 29	Oct. 2	Oct. 9	37-85	27-80	.....
1	1	6	.....	.....	.....	.....	2	2	Aug. 26	Sept. 26	Oct. 8	41-00	29-60	82,524
.....	5	7	.....	.....	.....	.....	.....	.....	Sept. 9	do 12	do 4	43-50	32-23	425,142
1	1	2	.....	.....	.....	.....	.....	2	do 1	do 9	Sept. 25	42-00	.....	45,613
.....	1	9	.....	2	.....	.....	.....	1	do 7	do 27	Oct. 19	42-00	26-45	503,328
.....	4	6	.....	1	.....	.....	.....	.....	Aug. 30	Oct. 2	do 9	41-50	34-77	258,827
1	10	10	.....	.....	.....	1	.....	.....	Sept. 2	Sept. 21	do 9	41-50	27-31	223,204
.....	1	2	1	.....	.....	.....	.....	.....	Aug. 29	do 13	Sept. 22	40-00	35-05	62,248
3	1	24	42	1	3	.....	3	6	.....	.....	.....	.....	.....	1,404,885
.....	.....	.....	.....	.....	.....	.....	.....	.....	Sept. 3	Sept. 21	Oct. 6	41-65	30-50	.....
.....	.....	6	10	.....	.....	.....	.....	3	Sept. 2	Oct. 7	Oct. 12	46-50	32-77	549,585
2	6	6	1	.....	.....	.....	.....	7	Aug. 21	do 2	do 13	45-00	40-42	261,113
3	1	6	.....	1	.....	.....	.....	.....	Sept. 6	Sept. 30	do 13	32-50	27-07	192,603
1	.....	10	.....	.....	.....	1	1	5	do 1	do 28	do 10	35-50	31-64	76,082
6	3	13	1	.....	2	.....	.....	3	do 7	do 27	do 13	39-50	33-32	210,082
2	5	8	2	2	.....	.....	.....	.....	Aug. 28	do 25	do 9	40-00	36-19	130,247
1	1	6	7	.....	.....	.....	4	2	Sept. 2	Oct. 6	do 11	44-00	26-23	137,602
15	2	32	60	4	3	3	5	20	.....	.....	.....	.....	.....	1,557,294
.....	.....	.....	.....	.....	.....	.....	.....	.....	Aug. 27	Oct. 3	Oct. 11	40-35	32-51	.....
20	3	67	107	7	6	4	11	32	.....	.....	.....	.....	.....	4,048,217
.....	.....	.....	.....	.....	.....	.....	.....	.....	Sept. 1	Sept. 26	Oct. 8	39-95	30-44	.....

BARLEY.

On 1st June this crop, like oats, was generally reported in a backward condition, the cause given being the want of rain. On 1st July the crop was reported generally in a fairly good condition. At that time it was hardly far enough advanced to form any correct idea of what it was likely to be. It was troubled, to a small extent, in a few places, by a grub. From the estimates formed, however, a fair average was expected in the central and western groups, with slightly better prospects in favour of the central; but in the eastern the yield was expected to be less. The frequent rains during July helped the crop very materially, and on 1st August the promise of a good yield was generally reported. Its prospects were rather brighter than the oat crop, particularly in the eastern and central groups. Of its prospects in the different groups, no perceptible differences were at that time observable, the general condition being about the same. In the counties of Turtle Mountain, Marquette, Dufferin, Lisgar and Beautiful Plains, the indications pointed to a full average crop, while in the others the yields were expected to be somewhat less. The September report showed the dates of the beginning of harvesting to be later than those of 1883 by a week, while the dates of ending were about the same. The part of the crop secured during August, when favorable weather prevailed, was reported a good sample, but that secured later, and which was caught by the September rains, fell somewhat below the average. In the eastern group the counties of Carillon, D'Iberville, Morris and Selkirk suffered from the rain shelling out the ripe grain before being finally cured. A small percentage of shrinkage was reported from D'Iberville and Morris. From the county of Lorette both sprouted and discolored grain were reported. In the central group the only losses of any account were reported from rain and hail, which appear to have done more or less injury in all the counties except Norfolk. In Township 6, Range 9, west, 50 per cent. of the crop was reported injured by frost, and shrunken in consequence. This loss was to the late sown grain, as the early sown was pronounced "good." In the western group the counties of Shoal Lake and Russell suffered the greatest losses from frost. Rain, too, did some damage in those two counties. In the remaining counties of the group no special loss was mentioned as having been in any way general.

The following table gives the particulars of the barley crop. The area was 40,848 acres, as compared with 60,281 acres in 1883, the reasons assigned being the want of railway facilities in many parts and the unsatisfactory state of the markets during the season of 1883-4. Of the area under crop, the eastern group contained 14,977 acres, the central 13,574 acres, and the western 12,297 acres. The average quantity of seed sown per acre throughout the Province was 2.26 bushels, as compared with 2.17 in 1883, with very trifling differences in the several groups. Of the varieties of seed sown, Four-Row was reported in 39 townships; Six-Row in 52; Eight-Row in 4; White in 4; Two-Row in 6, and Hulless in 2. The average dates of the beginning and ending of seeding throughout the Provinces were 11th May and 5th June, as compared with 8th May and 30th May, 1883. In the eastern and central groups the dates were identical, the western being considerably earlier. The average date of the ending of stacking, 28th September, was considerably later than that of cutting, the result, no doubt, of the wet weather that prevailed. In the central group stacking ended ten days earlier than in the eastern and western. The average yield per acre over the Province, as estimated by correspondents, was 32.44 bushels, an increase over 1883 of 2.44 bushels. The difference in the average yield in the different groups was but a small fraction of a bushel in favor of the eastern. The average dates of the beginning and ending of cutting were 26th August and 11th September, as compared with 19th August and 8th September, 1883. The average yield per acre for the Province, as estimated by correspondents on 1st October, before the results of the threshing were known, was 32.44 bushels, as compared with estimates by correspondents in 1883 of 30 bushels. The average in the eastern group was estimated at 32.50 bushels per acre, in the western at 32.43, and in the central at 32.40. The actual average yield per acre was furnished by threshers for all counties except Carillon and D'Iberville, in the eastern group, and Marquette, in the central. The highest individual

county average was that of Norfolk, in the central group, 29.24 bushels per acre, the lowest, Souris River, in the western group, 18.15. As a group, the average was highest in the central, 26.50 bushels per acre; the western being next, with 25.18, and the eastern the lowest, with 24.85. The average for the Province was 25.50 bushels per acre, being 6.94 bushels less than the general average derived from the estimates of crop correspondents before the results of the threshing were known. In every county, with the exception of Russell, in the western group, the averages of the threshers' returns fell short of the estimates furnished by crop correspondents. In the eastern group, the difference was 7.65 bushels per acre, in the central 5.90, and in the western 7.25.

THRESHERS' RETURNS.

An estimate of the aggregate yield in bushels of the 1884 barley crop for the Province, calculated on the threshers' returns, shows a total yield of 1,041,539 bushels, of which 372,165 bushels were in the eastern group, 359,773 in the central, and 309,601 in the western. In the three counties from which no returns were received from threshers, the estimate has been based on the correspondents' estimated averages. The county of Manchester, in the eastern group, which possessed the largest acreage under crop, showed also the largest county yield, viz., 123,936 bushels. The county of Carillon, in the eastern, showed the smallest county yield, 2,210 bushels; its acreage under crop being also the smallest.

BARLEY.

COUNTIES.	Acres sown, 1884.	AVERAGE DATES SEEDING.		VARIETIES OF SEED AND NO OF TOWNSHIPS EACH REPORTED FROM.						AVERAGE DATES CUTTING.		Estimated Average Yield per acre, in bushels.	Average Yield per acre, reported by threshers.	Aggregate Yield in bushels.		
		Began.	Ended.	Average bushels sown per acre.				AVERAGE DATES CUTTING.		Average date Stacking ended.						
				Four row.	Six row.	Eight row.	White.	Two row.	Hulls.		Began.				Ended.	
<i>Eastern Group—</i>																
Carillon	65	May 25...	June 10...	.....	1	.....	.....	.....	.....	Aug. 20...	Sept. 18...	34.00	2,210		
D'Arville	426	do 15...	do 14...	.....	2	.....	.....	.....	.....	Sept. 8...	do 28...	32.50	13,845		
Lorette	882	do 18...	May 24...	.....	1	.....	.....	.....	.....	Aug. 19...	do 19...	33.50	16,740		
Lisgar	2,981	do 21...	do 23...	.....	3	.....	.....	.....	.....	do 15...	Aug. 26...	35.00	76,462		
Manchester	4,615	do 24...	June 7...	.....	1	.....	.....	.....	.....	do 16...	Sept. 24...	33.50	123,936		
Norris	4,082	do 21...	do 18...	.....	2	.....	.....	.....	.....	do 24...	do 8...	27.50	97,723		
Saskatchewan	2,026	do 21...	May 31...	.....	1	.....	.....	.....	.....	.....	do 10...	20.38	41,249		
Selkirk	14,977	May 21...	June 7...	5	10	.....	.....	.....	.....	Sept. 2...	Sept. 13...	32.50	372,165		
<i>Central Group—</i>																
Beaufort Plains.....	773	May 20...	June 14...	.....	4	.....	.....	.....	.....	Aug. 10...	Sept. 19...	32.50	22,005		
Dufferin	4,461	do 15...	do 11...	.....	6	.....	.....	.....	.....	do 17...	Aug. 25...	34.00	119,545		
Marquette	301	do 20...	do 3...	.....	2	.....	.....	.....	.....	do 23...	Sept. 10...	34.00	10,231		
Norfolk	2,884	do 22...	do 6...	.....	4	.....	.....	.....	.....	do 23...	do 18...	33.25	84,328		
Portage la Prairie.....	1,842	do 25...	do 7...	.....	2	.....	.....	.....	.....	do 29...	do 9...	31.50	50,783		
Rock Lake	2,630	do 16...	May 31...	.....	5	.....	.....	.....	.....	do 16...	Aug. 22...	31.50	54,888		
Westbourne	680	do 30...	June 4...	.....	2	.....	.....	.....	.....	do 22...	do 26...	30.00	17,990		
Totals for group.....	13,574	May 21...	June 7...	19	14	.....	.....	.....	.....	Aug. 20...	Sept. 7...	32.40	359,773		
<i>Western Group—</i>																
Brandon	2,435	May 6...	June 8...	.....	1	.....	.....	.....	.....	Aug. 20...	Sept. 16...	35.00	69,925		
Dennis	1,013	do 4...	May 21...	.....	4	.....	.....	.....	.....	do 24...	do 24...	34.00	21,394		
Minnedosa	3,993	do 15...	do 19...	.....	3	.....	.....	.....	.....	do 31...	do 8...	31.50	106,453		
Russell	1,080	do 14...	do 27...	.....	2	.....	.....	.....	.....	Sept. 3...	do 16...	28.00	30,866		
Shoal Lake	2,477	do 15...	do 25...	.....	6	.....	.....	.....	.....	Aug. 20...	do 15...	31.00	63,411		
Souris River	435	Apr. 28...	do 14...	.....	2	.....	.....	.....	.....	Aug. 30...	do 11...	34.00	7,713		
Turtle Mountain.....	874	do 9...	do 28...	.....	3	.....	.....	.....	.....	do 19...	do 15...	33.60	19,839		
Totals for group.....	12,297	Apr. 24...	May 29...	15	28	.....	.....	.....	.....	Aug. 28...	Sept. 13...	32.43	309,601		
Averages for group.....		7.22	25.18		
Totals for Province.....	40,848	May 11...	June 5...	39	52	Aug. 26...	Sept. 11...	32.44	1,041,539			
Averages for Province.....		2.26	25.60		

On 1st September, 1884, as in 1883, a card prepared for the purpose was sent to the threshers in the Province, worded in part as follows:—"You will greatly assist the Department in the important work in which it is engaged by marking down inside this card the results on each farm on which you thresh, giving the number of acres on which the grain was grown and the total number of bushels produced. Do not give simply the best yields, but all work done, without selection of better or worse." These cards were to be returned on 1st December, but they continued to arrive till the end of that month. The number of replies received only slightly exceeded those of 1883, but the acreage and bushels produced of wheat and barley were more than double those reported in 1883. In oats there was a slight reduction in the acreage reported as having been threshed. A tabulated statement of these returns is appended, showing the counties in which the grain was threshed (assumed, as far as possible, from the post office address of the thresher), and the average yield in each, as well as the name of the thresher, his post office address, and the totals of his individual returns, under each of the heads, wheat, barley and oats, in acres and bushels. With the exception of the counties of Carillon and D'Iberville, in the eastern group, and Marquette, in the central group, all the counties in the Province are represented. In wheat, the average, taken by groups, stood highest in the western, being 21.59 bushels to the acre; 19.55 in the central, and 16.68 in the eastern. In barley, the central group was slightly in advance, being 25.41 bushels per acre; the western, 25.31, and the eastern 23.82. In oats the western group was at the head, with 31.35 bushels per acre; the central had 30.55, and the eastern was lowest, with 28.03. Taking the counties individually, Dennis, in the western group, had the highest acreage in wheat, 23.33 bushels per acre. Lorette, in the eastern group, had the lowest average, 10.75 bushels. In barley, Norfolk, in the central group, had the highest average, 29.24 bushels; and Souris River, in the western group, the lowest, 18.15. In oats, Dennis, in the western group, had the highest average, 40.42 bushels; and Lorette, in the eastern group, the lowest, 15.03 bushels. The averages as derived from these threshers' returns, fall short in all the grains in the different groups from the averages estimated by crop correspondents before the threshing was done. The largest discrepancies are found in oats and barley. From the estimates by correspondents throughout the Province, the threshers' returns make wheat fall short 1.73 bushels, barley 7.36, and oats 9.40. The threshers' averagers for the Province give wheat 20.11 bushels per acre, barley 25.03, and oats 30.55. Taking the estimates as correct, the estimates furnished by crop correspondents are certainly very creditable to them, as although made at a time when scarcely any threshing had been done, and when the real effects of the rain and frost could not possibly be accurately defined, the difference shown to exist in wheat is under two bushels. In oats and barley, which, in most cases, were much later in being stacked, the differences are larger, as has been shown.

THRESHERS RETURNS OF WHEAT, BARLEY AND OATS.

NAMES.	ADDRESS.	WHEAT.				BARLEY.				OATS.						
		Total.		Average.	Total.		Average.	Total.		Average.						
		Acres.	Bush.		Acres.	Bush.		Acres.	Bush.							
Eastern Group.																
Lorette—																
Neault, Auebre.....	Ste. Anne.....	254	1,660	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Harrison, John.....	Niverville.....	253	3,390	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
Cohoe, Borland & McIntyre.....	Olear Spring.....	180	2,334	687	7,354	10.75	150	3,522	318	6,036	18.98	67	1,611	351	5,277	15.03
Lisgar—																
Quickfall, Martin....	Balmoral.....	46	824	.....	.....	.....	12	328	.....	.....	.....	.....	43	1,116	.....	.....
Anderson, Jas., Jun..	Lower Fort Garry.	51	937	97	1,761	18.15	11	262	23	590	25.65	31	1,034	74	2,150	20.05
Manchester—																
Spens, Jacob.....	Gretna.....	391	7,938	.....	.....	.....	22	744	.....	.....	.....	.....	128	4,469	.....	.....
Friesen, Jacob.....	do.....	452	8,377	.....	.....	.....	.....	.....	.....	.....	.....	.....	101	3,873	.....	.....
Acres, W. T.	Dominion City....	289	4,604	.....	.....	.....	75	1,913	.....	.....	.....	.....	141	3,260	.....	.....
Iervell & Ward.....	Gauthier.....	936	19,171	.....	.....	.....	202	5,994	.....	.....	.....	.....	477	15,786	.....	.....
Peterson, John.....	Steinbach.....	79	1,214	.....	.....	.....	19	548	.....	.....	.....	.....	54	1,188	.....	.....
Walton & Bainell....	Green Ridge.....	433	7,099	.....	.....	.....	74	1,611	.....	.....	.....	.....	202	5,929	.....	.....
Brown, W. J.	St. Jean Baptiste..	249	4,380	2,832	52,783	18.64	27	691	419	11,501	27.45	94	4,104	1,197	38,619	32.26
Morris—																
Brown, John.....	Morris.....	40	880	.....	.....	.....	10	325	.....	.....	.....	.....	20	800	.....	.....
Moodie, Joseph.....	do.....	253	3,260	.....	.....	.....	75	1,820	.....	.....	.....	.....	45	780	.....	.....
McTavish, H. J.....	do.....	286	4,005	579	8,145	14.06	66	1,670	151	3,615	23.94	83	2,553	148	4,133	27.92
Selkirk—																
Smith, John K.....	Millbrook.....	59	906	59	906	15.35	11	224	11	224	20.36	72	1,452	72	1,452	20.01
Totals for group....				4,254	70,979				922	21,969				1,842	51,631	
Averages do						16.68					23.82					28.03

Central Group.

Beautiful Plains—

McKinon, Wm	384	8,524	3	50	296	8,336	20,341	29-60
Clark, Frank J.	75	1,384	66	195	35	1,085		
Smith, John & Neil	545	11,805	70	1,752	185	6,176		
Milne, James	132	2,540	42	1,977	89	1,748		
McCracken, I. B.	256	6,274	1,392	30,527	21-93	687	3,016	
Eden				189	5,308	28-08		
Dufferin—								
Toews & Co.	240	2,873	37	860	181	3,895		
Patterson, Abraham	504	10,248	67	1,250	123	3,604		
Grubb, B.	409	8,229	65	1,914	128	4,208		
Thompson, John	267	4,670	29	805	39	1,210		
Dyck, F. T.	589	12,837			258	9,056		
Parsons, Jno. P.	210	3,434	61	1,964	113	4,015		
Brown, W. J.	585	11,270	15	254	179	5,816		
Pomeroy	383	10,540	38	1,105	93	3,376		
Archibald	310	6,012	28	818	86	2,998		
Thompson, Wm.	312	4,660	26	630	41	946		
Ross & Phillips	548	13,198	31	1,246	155	4,909		
Law, James E.	832	15,118	142	4,210	65	1,698		
Bruce & Simpson	731	13,221	53	1,400	273	9,744		
Laycock, Charles	392	7,533	69	1,585	180	4,739		
George & Pearson	683	12,580	84	1,363	166	5,821		
Tickling, H. G.	377	6,285	12	330	89	3,265		
Stevenson, W. L.	377	6,285	53	1,246	176	5,300	2,312	74,529 32-23
Biggs, R. H.		8,345	7,844	151,053	19-25			
Norfolk—								
Byers, James	79	2,205	30	690	243	6,171		
Bryson & Wallace	734	13,779	5	150	32	825		
Mitchell, James	228	5,404	199	6,313	361	11,196		
Davidson, James	853	18,959	48	1,503	122	3,651		
Meredith, Joseph	75	1,837	56	1,305	462	11,751		
Duncan, John	206	3,505	9	280	38	980		
Thompson, S.		2,175	15	416	112	1,667	1,321	36,241 26-45
Beaver Creek		45,659	21-10	362	10,587	29-24		
Portage la Prairie—								
Brydon, F. A.	1,026	20,708	79	2,482	366	12,956		
Hagerty, D. M. J.	500	11,122	20	600	100	4,000		
Fisher, John A.	889	15,239	20	333	277	7,262		
McCowan, D.	555	12,157	25	729	154	7,088		
Burnside	513	9,752	22	635	395	10,948		
Kell, Thos. D.	571	11,349	29	631	203	7,378		
Metcalfe, T. H.	589	11,322	55	1,760	224	10,171	1,719	59,783 34-77
Davis, John M.		91,518	19-73	260	7,170	27-57		
Hugh Bluff		4,043						
Rock Lake—								
Stead & Ginley	317	6,872	13	250	101	4,248		
Laidlaw, Aileck & Co	268	4,861	95	1,986	119	2,532		
Clearwater								

THRESHERS RETURNS OF WHEAT BARLEY, AND OATS—Continued.

NAMES.	ADDRESS.	WHEAT.				BARLEY.				OATS.			
		Acres.	Bush.	Total.	Average.	Acres.	Bush.	Total.	Average.	Acres.	Bush.	Total.	Average.
Central Group—Con.													
Rock Lake—													
Watson, David.....	Crystal City.....	280	5,910			46	896			136	3,064		
Edson, John.....	do.....	212	4,537			69	1,661			88	3,271		
Shaver, C. H.....	Snowflake.....	478	10,247			73	1,603			151	4,834		
Keating, M. M.....	Kingsley.....	270	5,396			63	1,824			123	4,316		
Hagyard, Thos.....	Rutanville.....	628	11,867			50	1,258			151	3,395		
McLean, Jas.....	Pilot Mound.....	543	9,776			107	1,758			177	4,706		
do.....	do.....	488	8,553			55	937			222	5,416		
Allan Bros.....	Preston.....	685	9,367			73	1,330			208	3,570		
Duncan, R. J.....	Menaw.....	621	11,341			21	570			147	4,040		
Cramer, Geo. W.....	Grund.....	74	892			4	83			16	336		
Amason, H.....	do.....	600	11,465			32	638			146	4,749		
Gard, A.....	Silver Spring.....	258	5,435							93	3,025		
Morrow, Jos.....	Rutanville.....	633	12,405	6,353	118,925	18.71	149	3,072	850	17,749	2,117	58,030	27.31
Eloven, John.....													
Westbourne—													
Chubb, George.....	Gladstone.....	221	3,862			23	542			56	1,468		
Wilcox, S. T.....	do.....	682	14,044	903	17,906	19.83	208	5,570	231	6,112	12,205	390	35.05
Totals for group...													
Averages do													
Western Group.													
Brandon—													
McKelvie, D.....	Brandon.....	1,335	30,270			19	604			390	13,719		
Richards, M. L.....	Chater.....	1,073	22,029			70	1,142			302	7,935		
McNulty, Jas.....	do.....	820	18,763			33	1,087			227	7,516		
Ortle, Wm.....	Elton.....	341	6,947			22	684			176	6,504		
Ayer, Douglas.....	Lothair.....	149	3,006							78	2,385		
Goldsmith, W.....	Pultenay.....	816	14,966	4,531	95,971	21.16	5	150	149	3,667	2,882	1,252	40,910
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PEAS.

On 1st June correspondents said nothing about the condition or prospects of peas, but confined their remarks to wheat, oats and barley. * On 1st August, though not alluded to in any specific way by many of the correspondents, the crop was very generally reported to be in good condition, and the general tenor of the reports showed but trifling differences in its prospects in the different groups. The counties of Dennis, Portage la Prairie, Selkirk and Manchester, appeared at that time to possess the highest condition, and a fair average crop was expected throughout the Province, though an average and over average was expected in many townships. In the September reports correspondents confined themselves to answering the questions asked as to other crops, making no remarks as to peas. The area under crop was 5,342 acres, as compared with 1,214 acres, in 1883. Of this area the eastern group contained 376 acres, the central 3,435 acres and the western 1,531 acres. The average dates of the beginning and ending of seeding in the Province were 12th May and 23rd May, the dates in the western group being earlier than those of the central and eastern. The average quantity sown per acre was 2.23 bushels. Of the various varieties of seed sown, Crown was sown in twenty townships, White in five, Golden Vine in eight, Marrowfat in three, Black Eye in two and Multipliers in one. The dates of the beginning and the ending of the harvest were 25th August and 14th September, the central group being the earliest, with very slight differences in the dates of ending in the three groups. The average yield per acre for the Province was 18.62 bushels, the western group averaging 24.03 bushels, the eastern 19.61 and the central 16.11. The aggregate yield for the Province was 95,417 bushels.

PEAS.

COUNTIES.

COUNTIES.	ACRES SOWN, 1884.	AVERAGE DATE SEEDING.		Average bushels sown per acre.	VARIETIES OF SEED AND NO. OF TOWNSHIPS EACH REPORTED FROM.					AVERAGE DATE HARVEST.		Average Yield per acre, in bushels.	Aggregate Yield in bushels.	
		Began.	Ended.		Crown.	White.	Golden Vine.	Marrowfat.	Black Eye.	Multiply-ers.	Began.			Ended.
<i>Eastern Group—</i>														
D'Arville	74	May 15...	May 20...	2.00	1						Sept. 12...	Sept. 22...	25	1,850
Lorette	120	May 14...	May 17...	1.95	1	1					Sept. 1...	Sept. 1...	25	225
Lisgar	124	do 22...	June 5...	2.30							do 1...	do 1...	16	1,984
Manchester	49													
Selkirk														
Totals for group.....	376	May 17...	May 30...	2.08	2	1	1				Sept. 4...	Sept. 11...	19.61	4,059
Averages for group.....														
<i>Central Group—</i>														
Redoubt Plains	48	May 5...	May 30...	2.10	1	1					Sept. 2...	Sept. 2...	15	44,730
Dufferin	2,982	do 10...	do 17...	2.15	2						Aug. 23...	Sept. 2...	25	2,175
Marquette	87	do 16...	do 25...	2.33	1	1					Sept. 2...	Sept. 2...	25	5,060
Norfolk	202	do 19...	do 28...	2.00		1					Aug. 25...	Sept. 20...	23	2,507
Rock Lake	109	do 8...	do 17...	2.25			1				do 1...	do 12...	15	105
Westbourne	7	do 24...	do 30...	3.00										
Totals for group.....	3,435	May 14...	May 25...	2.31	4	2	2				Aug. 17...	Sept. 16...	16.11	54,567
Averages for group.....														
<i>Western Group—</i>														
Brandon	506	May 4...	May 23...	1.50	1		1				Sept. 9...	Sept. 16...	25	12,650
Dennis	222	do 3...	do 5...	2.21	1	1	1				Aug. 21...	do 5...	28	6,216
Minnedosa	70	do 5...	do 15...	2.62	2		1				Sept. 5...	Sept. 20...	20	1,400
Russell	238	April 25...	do 9...	2.31	1						do 8...	do 19...	20	4,760
Stoat Lake	190	May 8...	do 18...	2.28	4	2	1				Aug. 27...	do 16...	22	4,189
Shoal Lake	115	do 9...	do 12...	2.40	2	1	1				Sept. 10...	do 17...	23	2,645
Souris River	190	do 24...	do 13...	2.31	3		1						26	4,940
Turtle Mountain.....														
Totals for group.....	1,531	May 7...	May 14...	2.29	14	2	5	3	2	1	Sept. 4...	Sept. 15...	24.03	36,791
Averages for group.....														
Totals for Province.....	5,392	May 12...	May 23...	2.23	20	5	8	3	2	1	Aug. 26...	Sept. 14...	18.63	95,417
Averages for Province.....														

FLAX.

The acreage sown was 5,972 acres, as compared with 10,817 acres in 1883. The average dates of the beginning and ending of seeding were 16th May and 24th May, the dates in the western group being earlier than those of the other two. The average quantity sown per acre was 35 pounds. Like other crops, it was late being harvested, the dates of the beginning and ending being 6th September and 22th September, the dates in the central group being the earliest. The average yield per acre was 14.56 bushels, an increase of 4.54 bushels over 1883. The average quality was also better than that of 1883. The aggregate yield in bushels was 86,863 bushels.

FLAX.

COUNTIES.	Acres sown, 1884.	Average dates Seeding		Average Pounds sown per Acre.	Average dates Harvest		Average yield per Acre in bushels.	Aggregate yield in bushels.
		Began.	Ended.		Began.	Ended.		
<i>Eastern Group—</i>								
Manchester.....	4,439	May 20...	June 1...	40	Sept. 5...	.....	14	62,146
Selkirk.....	50	.....	do 1...	.....	.....	.....	14	700
Totals for group.....	4,489	.....	.....	.....	.....	.....	.....	62,846
Averages for group.....	.....	May 20...	June 1...	40	Sept. 5...	.....	14	.....
<i>Central Group—</i>								
Dufferin.....	348	May 1...	May 27...	20	Aug. 23...	Sept. 19...	18	6,264
Norfolk.....	27	do 26...	.....	.....	.....	.....	19	513
Rock Lake.....	139	do 25...	June 1...	20	Sept. 12...	Sept. 19...	20	2,780
Westbourne.....	5	.....	.....	.....	.....	.....	.....	.....
Totals for group.....	519	.....	.....	.....	.....	.....	.....	9,557
Averages for group.....	.....	May 17...	May 30...	20	Sept. 2...	Sept. 19...	18.59	.....
<i>Western Group—</i>								
Brandon.....	440	.....	.....	60	Sept. 20...	.....	15	6,600
Dennis.....	56	May 10...	.....	.....	.....	.....	15	810
Minnedosa.....	53	do 10...	May 24...	30	Sept. 4...	.....	15	795
Russell.....	27	.....	.....	.....	.....	.....	15	405
Shoal Lake.....	32	May 15...	May 10...	.....	.....	.....	15	480
Souris River.....	58	do 10...	do 13...	.....	Sept. 1...	Sept. 20...	15	870
Turtle Mountain.....	298	do 10...	do 24...	.....	do 17...	do 30...	15	4,470
Totals for group.....	964	.....	.....	.....	.....	.....	.....	14,460
Averages for group.....	.....	May 11...	May 18...	45	Sept. 10...	Sept. 25...	15	.....
Totals for Province.....	5,972	.....	.....	.....	.....	.....	.....	86,863
Averages for Province..	.....	May 16...	May 24...	35	Sept. 6...	Sept. 23...	14.56	.....

POTATOES.

On 1st July potatoes were generally reported a very encouraging crop. Where they were specially mentioned apart from field roots, they showed indications of a good yield, and they did not appear to have been attacked by grubs to the same extent as field roots. No particular advantages were observable in any of the groups, an average crop being looked forward to in all. On 1st August the appearance of the crop seemed to justify all that was expected on 1st July. A vigorous growth took place during July, and a large yield was expected. With

the exception of the counties in the eastern group, and the counties of Rock Lake and Russell, in the central and western groups, respectively, the crop suffered somewhat from grubs, which were described as being of a grey or slatish color, and about an inch and a-half in length, which cut off the plant below the ground, when it turned yellow and wilted. The eastern group of counties appeared to possess a slight advantage over the central and western groups in the prospects of the crop, but throughout the Province a good average crop was looked for, the counties of Lorette, Lisgar, Beautiful Plains, Marquette, Minnedosa, Souris River and Dennis, promising over an average. The September reports spoke of the slight frost of the early part of July as having affected the growth, to a considerable extent, in the counties of Shoal Lake, Russell and Brandon, causing the crop to be shorter than it otherwise would have been. In the county of Rock Lake, in the central, and the counties of Lorette, Lisgar, Manchester and D'Iberville, in the eastern group, the continuous rains of the latter part of August and the early part of September caused rot to set in, and a considerable reduction in the average yield per acre resulted. With these exceptions, no other damage was spoken of. In the United States the potatoe crop of 1884 suffered more or less from rot in New England, New York and Pennsylvania, in the north-western States bordering on the lakes, and also in Iowa, Missouri, Kansas and on the Pacific coast. In some counties of Washington Territory and Oregon the tubers rotted badly, while in others the yield was good. In Kansas the fall rains caused rotting in some places. In this Province, where no damage was felt from frost or rot, the condition of the crop was invariably highly spoken of. Throughout the Province the average yield fell short of 1883. While the central group of counties, as a whole, gave a slightly larger average yield than was general in 1883, the eastern and western groups fell below. The quality has, in every case where not touched by rot, been reported good. The total area under crop with potatoes in the Province in 1884 was 11,267 acres, of which the eastern group contained 4,012, the central, 3,693, and the western 3,562. The average yield per acre in bushels was 192, giving an aggregate yield of 2,167,820 bushels.

FIELD ROOTS.

When correspondents returns were received on 1st July, field roots were reported as having suffered very much from grubs and flies, as well as from the dry weather, and in several cases they were reported a total failure. With the exception of the county of Russell, the whole Province was overrun by grubs and flies, which did a large amount of damage to the crop. However, in the central group a fair average crop was looked for, but in the eastern and western the prospects did not justify the expectation of even a fair average. On 1st August roots were not specially mentioned, apart from turnips. The slight frost of 1st July cut down the tops in many places. The grubs appeared to have passed away in the early part of July, and the frequent rains and suitable weather that prevailed during the latter part of that month greatly helped the crop. In the western and central groups the turnip crop was expected to be good, but in the eastern the prospects were not so bright. The counties of Lorette and Manchester, however, showed indications of an average crop. In the western and central groups the prospects had improved since 1st July. The September reports showed that in all the varieties the general averages were below those of 1883. In the central and western groups the averages, with the exception of turnips, were better than those of the eastern group. With the exception of the counties of Beautiful Plains, Norfolk, Minnedosa and D'Iberville, the quality and condition of the root crop was reported to be excellent. The total area under turnips in the Province was 2,728 acres, with an aggregate yield of 1,148,756 bushels; under beets, 520 acres, with an aggregate yield of 130,497 bushels; under mangolds, 912 acres, with an aggregate yield of 350,743 bushels, and under carrots, 653 acres, with an aggregate yield of 177,221 bushels.

POTATOES AND FIELD ROOTS.

COUNTIES.	POTATOES.			TURNIPS.			BEETS.			MANGOLDS.			CARROTS.		
	Acreage in 1884.	Average yield per acre, in bushels.	Aggregate yield, in bushels.	Acreage in 1884.	Average yield per acre, in bushels.	Aggregate yield, in bushels.	Acreage in 1884.	Average yield per acre, in bushels.	Aggregate yield, in bushels.	Acreage in 1884.	Average yield per acre, in bushels.	Aggregate yield, in bushels.	Acreage in 1884.	Average yield per acre, in bushels.	Aggregate yield, in bushels.
<i>Eastern Group—</i>															
Carillon.....	27	225	6,075	7	450	3,150	.....	.....	.....	2	200	400	2	150	300
D'Herbille.....	89	200	17,800	7	500	3,500	4	208	832	.....	8	1,200	12	100	1,200
Lorette.....	503	175	88,025	40	160	6,400	6	208	1,248	.....	2	500	2	200	400
Liger.....	571	185	105,635	107	342	36,694	3	117	351	.....	2	250	37	150	5,550
Manchester.....	1,056	180	190,080	189	400	75,600	27	300	8,100	44	200	8,800	37	150	5,550
Morris.....	710	100	71,000	12	600	7,200	.....	.....	.....	.....	.....	.....	60	150	9,000
Selkirk.....	1,056	125	132,000	209	500	104,500	143	208	29,744	132	200	26,400	60	150	9,000
Totals for group.....	4,012	.....	610,615	571	.....	236,544	183	.....	40,275	188	.....	37,300	121	.....	17,650
Averages for group.....	.....	152	.....	.....	414	.....	.....	220	.....	.....	198	.....	.....	146	.....
<i>Central Group—</i>															
Beautiful Plains.....	219	290	63,510	77	325	25,025	.....	300	12,374	80	400	32,000	.....	300	35,500
Dufferin.....	1,610	213	342,930	254	446	113,030	23	538	12,374	32	600	19,200	71	500	35,500
Marquette.....	166	234	38,504	25	348	8,700	10	397	3,970	5	487	2,435	3	206	618
Norfolk.....	519	233	119,737	174	375	65,250	34	397	13,498	25	487	12,175	46	200	9,200
Portage la Prairie.....	479	197	94,363	19	300	5,700	28	300	8,400	38	400	15,200	26	200	5,200
Rock Lake.....	519	243	126,117	289	128	37,116	.....	250	8,400	32	550	45,100	60	475	28,500
Westbourne.....	191	243	46,413	6	200	1,200	.....	.....	.....	.....	.....	.....	.....	.....	.....
Totals for group.....	3,693	.....	825,574	844	.....	347,221	95	.....	38,242	262	.....	126,110	206	.....	79,018
Averages for group.....	.....	224	.....	.....	411	.....	.....	403	.....	.....	481	.....	.....	384	.....
<i>Western Group—</i>															
Brandon.....	943	231	217,833	412	471	194,052	70	220	15,400	215	550	118,250	109	337	36,737
Dennis.....	563	182	102,384	210	400	84,000	30	130	4,600	51	150	7,650	28	140	3,920
Minnesota.....	514	238	122,332	168	440	68,640	19	220	4,160	68	338	19,943	42	280	8,400
Russell.....	197	208	41,173	105	300	31,500	47	220	10,340	66	200	12,800	68	200	13,200

Shoal Lake.....	668	169	108,884	129	525	67,725	23	220	5,060	20	300	8,000	18	300	4,800
Souris River.....	217	196	42,315	92	272	25,024	25	130	3,250	17	323	5,491	40	150	6,000
Turtle Mountains.....	461	210	96,810	209	450	94,050	23	400	9,200	34	300	10,200	25	300	7,500
Totals for group.....	3,562		731,631	1,313		564,901	242		51,980	462		187,333	326		80,553
Averages for group.....		205			430			215			405			247	
Totals for Province.....	11,267		2,167,826	2,728		1,118,766	520		130,497	912		350,743	653		177,221
Averages for Province.....		192			422			251			386			271	

TIMBER.

The supply of timber existing in the different townships is very varied. While a great many townships are entirely without any timber, others possess supplies capable of supplying the settlers, for ordinary purposes, for periods ranging from one or two to fifty years, and, in some instances, for all time, if protected from fires. Wire being the fence material most generally adopted, comparatively little timber is used for fencing, consequently the strain on the supply, is not so great. In a number of instances, wood has to be drawn long distances, and in a few the supply of wood for fuel is becoming a serious question with the settlers, which will, however, be solved for southern Manitoba, when the south-western branch of the Canadian Pacific Railway is extended to the Souris-coal fields. From the fact that in many counties some townships possess no wood whatever, while others possess from a limited supply to a quantity sufficient to last for all time, it is almost an impossibility to say what counties have a sufficiency if the supply necessary for the inhabitants of the county were confined strictly to the county itself. Poplar was reported from 252 townships; balm of Gilead from 69; Oak from 150; ash from 91; elm from 93; birch from 54; maple from 61; willow from 36; white spruce from 30; basswood from 5; tamarac from 14; cherry from 9; pine from 4; hazel from 3; plum from 2; ironwood from 2, and cockspur thorn from 2.

VARIETY AND NUMBER OF TOWNSHIPS EACH REPORTED FROM.

COUNTIES.

Eastern Group—

Orillon
 Pithville
 Lorette
 Lisgar
 Manchester
 Morris
 Selkirk

Totals for group.....

Central Group—

Beaufort Plains
 Dufferin
 Marquette
 Norfolk
 Portage la Prairie
 Rock Lake
 Westbourne

Totals for group.....

Western Group—

Brandon
 Dennis
 Minnedosa
 Russell
 Shod Lake
 Souris River
 Turtle Mountain

Totals for group.....

Totals for Province.....

Poplar.	Balm of Gilead.	Oak.	Ash.	Elm.	Birch.	Maple.	Willow.	White Spruce.	Basswood.	Tamarac.	Cherry.	Pine.	Hazel.	Plum.	Ironwood.	Cockspur Thorn.
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
6	2	2	2	3	1	2	3	6	1	3	1	1	1	1	1	1
15	5	11	2	3	1	1	1	6	1	1	1	1	1	1	1	1
6	2	4	2	4	1	1	1	1	1	1	1	1	1	1	1	1
.....
8	1	3	2	2	.....	2	1	2	1	1	.....	.....	.....	.....	.....	.....
35	12	25	15	16	4	9	5	14	4	9	1	2	1	1	1	1
.....
12	7	.....	5	3	4	2	1	7	.....	.....	1	1	.....	.....	1	.....
18	9	16	10	12	6	8	2	1	.....	.....	1	1	.....	.....	.....	.....
14	2	11	3	2	1	1	3	1	.....	.....	.....	.....	.....	.....	.....	.....
20	4	13	4	5	3	6	1	6	1	3	1	.....	.....	.....	.....	.....
9	3	8	4	6	3	3	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
23	10	20	7	7	6	5	1	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	1	3	2	3	1	1	.....	.....	.....	.....	.....	.....	.....	.....	.....	.....
102	36	71	34	38	23	26	8	14	1	3	3	1	.....	.....	1	.....
.....
16	6	10	5	3	.....	3	5	.....	.....	.....	.....	.....	.....	.....	.....	.....
15	4	11	13	14	1	7	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
18	1	3	.....	.....	1	2	3	2	.....	1	.....	.....	.....	.....	.....	.....
21	1	9	3	4	14	.....	4	.....	.....	1	1	1	1	.....	1	.....
8	3	7	6	4	4	.....	4	.....	.....	.....	.....	.....	.....	.....	.....	.....
6	.....	3	9	6	1	5	3	.....	.....	.....	1	.....	.....	.....	.....	.....
11	6	11	6	5	6	5	3	.....	.....	.....	3	.....	2	1	.....	1
.....
115	21	54	42	39	27	26	23	2	.....	2	5	1	3	1	1	1
.....
252	69	150	91	93	54	61	36	30	5	14	9	4	3	2	2	2

TREE PLANTING

is becoming very general in the Province, particularly in the localities not already wooded. Comparatively few correspondents reported that no attention had been paid to the planting of trees in their townships. All the varieties of indigenous trees have received a large amount of attention, and were reported doing well. Besides these, some varieties of important fruit and ornamental trees have been planted, but as that was principally done in the fall of 1883 and spring of 1884, little could be said about them. Many have sown the seeds of the native maple and transplanted the young trees in large numbers, with universal success. Poplar, spruce, balsam of Gilead, &c., were among the trees generally spoken of as having been planted, apart from the native maple, which appears to be the most popular. Invariably, correspondents acknowledged the benefits to be derived from the cultivation of trees on their farms, and no doubt tree planting will receive a larger amount of attention each succeeding year. In some localities it is very difficult to obtain trees for transplanting, without having to carry them, in some instances, very long distances, and for that reason many places are not receiving much attention. This could be overcome in a large measure by obtaining seeds and transplanting the seedlings, which, from all accounts, grow with wonderful rapidity. In several places where little or no statute labour is necessary on the roads, correspondents have suggested the idea of the work being performed by planting trees; others, again, have suggested the idea of the Provincial Government, offering some inducements for the cultivation of trees. The benefits to be derived by the farmer directly and the country generally from having numerous groves and avenues of shade trees, as well as ornamental trees and shrubbery, are numerous. The idea of spending a certain amount of statute labour time on tree planting is one well worthy of being carried out. In that way prairie roads would soon become avenues that would afford shelter in summer and be a guide in crossing large open spaces at night or during the storms of winter. Apart from this, every farmer who has not a grove or sheltered place on his farm wants one, and should take the necessary steps to secure it. Provisions for an annual Arbor Day for the Province have been made, and when it is proclaimed year by year, it is hoped all will respond, so that the open prairie may soon assume a different appearance. On the question of statute labor, many correspondents say that spending it on prairie roads is needless, and that if it were devoted to tree planting, most beneficial results would ensue. The Rev. George Roddick, of Township 9, Range 18, west, in advocating tree-planting, said: "Statute labour, as now expended, is a perfect farce. The time is spent, but the results are nil." In a recent issue, the *Rural Canadian* remarked that: "The vast benefits of tree-planting on the prairies, not only to the country, but to the farmer, are gradually being demonstrated, as time brings the trees and groves already planted in years gone by to perfection, in the most conclusive manner, by a comparison of the selling value of the farms on which trees have been planted long enough to be pretty well forward, and others where this method of improving and beautifying the land has been neglected. Cases are not uncommon where farms, not more favoured otherwise than their treeless neighbours, bring \$2 and \$3 an acre more to the seller, owing to the existence of a good grove of trees. Young farmers in the newer sections of our country, and, indeed, everywhere, for that matter, will find in this fact great encouragement to tree-planting. We know of no other way in which the cultivation of a small section of the farm can be made to so enhance the value of the entire property. A little calculation as to the increased wealth of the country, had tree-planting been universally adopted by the farmers fifteen or twenty years ago in the prairie States of the American Union, gives truly astonishing results. Add to these the benefits to the soil which would have accrued from a more extensive use of live stock by the early settlers, and the, what might have been, becomes indeed saddening. It is never too late to mend, however, and we are mending in these respects." Let farmers take counsel from these remarks, and put in practice all that is sought to be taught by them.

RABBITS,

or hares, as they are popularly called here, varied considerably in number in different counties. In some they were reported as very numerous, in others not so plentiful, while in the county of Dennis they were very scarce. Among the counties in which the largest numbers seemed to be found were Shoal Lake, Mianadosa, Rock Lake, Beautiful Plains, Marquette, Manchester, Russell and Westbourne. The remaining counties did not appear to possess them in such large numbers. The damage done by them has been confined almost exclusively to girdling the bark off young trees during the winter. One correspondent in Dufferin and one in Souris River complained of their having interfered with the gardens and some grain. With these exceptions, no other damage has been reported. They seem to confine themselves to the bluffs, and rarely venture out on the open ground, so that where any damage has happened it has been where gardens were planted near to woods.

NOXIOUS WEEDS.

From reports received on 1st June, noxious weeds appeared to be gaining a decidedly strong foothold in many parts of the Province. In 1883 enquiries were made by the Department to ascertain the nature and varieties of the different weeds growing, so that steps might be taken to rid the Province of them, as far as possible. The Legislative Assembly passed very stringent laws relating to the destruction of noxious weeds, compelling municipal councils to appoint overseers of highways, pathmasters or other officers, to see to the carrying out of, the provisions of the statute, these several officers being appointed to certain limits within which to exercise their functions. Besides these municipal officials, noxious weeds inspectors were appointed by the Department, whose duties were, to see that the municipal authorities did their duty. The duties of municipal clerks, pathmasters and the general public, were printed by the Department and distributed in large numbers to municipal clerks for distribution to pathmasters, so that ignorance of the law could not be set up by any as an excuse, should weeds be allowed to get beyond control. Of the several varieties of weeds reported, wild buckwheat seemed to be the most prevalent. Lambsquarter, Canada thistles and wild mustard were reported from many localities, and cockle, wild oats and wild sunflower also abounded. Though several of the varieties are prevalent, still they are all of a nature that can be got rid of in a short time by attention to summer fallowing and by sowing clean seed. The laws regulating their destruction are very thorough, and careful observance of them by pathmasters and overseers of highways, assisted by a determination on the part of farmers themselves to rid their properties of them, will soon free the Province pretty thoroughly of them. The law as to their destruction was reported as being pretty generally carried out. Of the several varieties, wild buckwheat was reported from 101 townships; lambsquarter from 38; cockle from 9; wild mustard from 22; wild oats from 10; Canada thistle from 28; and wild sunflower from 12. Wild buckwheat and lambsquarter were the prevailing varieties in the central and western groups, while in the eastern group the prevailing varieties were wild mustard and Canada thistles, which were principally found along and in the vicinity of the Red and Assiniboine Rivers. So much has been said by correspondents about the necessity of summer fallowing for destroying weeds that it must be taken for granted that the great majority of the farmers are acquainted with it. Weeds are a great curse, and at no time are the means for their destruction so necessary and effectual as when they are beginning to spread. The effects following the non-observance of the laws in Ontario are being seriously felt, and now, when several varieties of noxious weeds are gaining the mastery, and appeals are being made to the authorities for protection, statutes which have been allowed to lie dormant are being again prominently enforced. Let the farmers of Manitoba see to it that theirs may not be a similar experience.

NOXIOUS WEEDS.

COUNTIES.	Varieties and No. of Townships each reported from.						
	Wild Buck-wheat.	Lambs' Quarter.	Cockle.	Wild Mustard.	Wild Oats.	Canada Thistles.	Wild Sunflower.
Eastern Group—							
Carillon					1		
D'Iberville.....				2		1	
Lorette			1	4	2	3	
Lisgar.....	1			3		9	
Manchester.....				3		2	1
Morris.....				4			
Selkirk.....	1			4	1	5	
Totals for group	2		1	20	4	20	1
Central Group—							
Beautiful Plains.....	7						2
Dufferin	8	4	3		2	3	1
Marquette.....	3	3				1	
Norfolk.....	9	7			1		1
Portage la Prairie.....	2	1		1	1		1
Rock Lake.....	12	2	1		1	2	
Westbourne.....	2		1	1			
Totals for group	43	17	5	2	5	6	5
Western Group—							
Brandon.....	12	4			1		
Dennis.....	8	2					1
Minnedosa.....	9	8	2				3
Russell.....	2	1	1			2	
Shoal Lake.....	9	2					
Souris River.....	2	1					1
Turtle Mountain.....	14	3					1
Totals for group	56	21	3		1	2	6
Totals for Province.....	101	38	9	22	10	28	12

PESTS.

On 1st July a grub was reported as having done considerable damage to garden plants throughout the Province, except in the county of Russell. A fly, too, was reported as having attacked the turnip leaves, causing a good deal of damage. In some instances barley and oats suffered from the grubs, but to a very small extent. They appeared to burrow in the ground and cut the plant off below the surface of the soil. On 1st August further damage from grubs to roots and vegetables was reported from every quarter in which they were found. In the counties of Beautiful Plains and Westbourne only oats and barley had been reported attacked by them, but their damage was only sufficient to show they had been at work. Their ravages for the season were, however, reported at that time to have come to an end, as they had passed away. Several specimens of the worms referred to were forwarded by the Department to the entomological division of the United States Department of Agriculture, to the President of the Ontario Entomological Society of Ontario, Mr. W. Saunders, of London, Ontario, and to Mr. James Fletcher, of the Ottawa, Ontario, Field Naturalists' Club and Honorary Entomologist of the Dominion Department of Agriculture.

The following communication was received in reply from the assistant in charge of the Entomological Division of the United States Department of Agriculture:—"The worms are cut-worms, and are the larvæ of some species of *Agrotis*. The species cannot be determined accurately until the moth has been reared. The same worm has been abundant the present season in the district of Columbia, and has also been received from New York State. I doubt if there is more than one brood in a season in your locality, and if this be the case, these worms passed through the winter as half-grown larvæ and hatched from eggs late laid last summer. In small gardens cut-worms can be hand-picked at night with a lantern, or they may be trapped in holes made by trusting a smooth stick deep into the ground by the side of the plant to be protected. In large fields, however, it is advisable to rid the ground of the worms before planting in the spring by scattering over the fields cut grass or clover which has been poisoned with a Paris green or London purple solution—twenty gallons of water to one-half pound of the arsenical poison. This plan has been tried with great success in some of the southern States, and is the result of a suggestion by Prof. Riley."

Mr. W. Saunders, President of the Ontario Entomological Society, to whom specimens were also sent, wrote as follows, under date of 12th July, 1884:—"This larvæ belongs to the class commonly known as 'cut-worms,' from their habit of cutting off near the base young cabbage and other plants. Under this common designation there are included quite a number of species belonging chiefly to the genera of *Agrotis*, *Hadena* and *Mamestra*, some of which, though differing materially in the perfect or moth state, closely resemble each other in the caterpillar condition. Any season when these worms are unusually abundant they are sure to attract attention by their depredations on wheat, corn, clover, &c. Their appetite is so keen that they will eat almost any green thing. The species you send differs in some points from any that I have seen here, although bearing a strong resemblance to one of our commonest cut-worms belonging to the genus *Agrotis*. I am endeavoring to rear some of them, and if I succeed, will send you such further information as I can. The general history of these cut-worms may be briefly given as follows: The eggs are laid by the parent moths during the summer, from which, in two or three weeks, young larvæ hatch. The eggs are sometimes laid on the ground about the roots of grass or other plants, sometimes on the leaves near the ground. During the autumn the grubs attain a growth of about one-half an inch in length, when they burrow into the ground and remain there in a torpid condition all winter. The warmth of spring arouses them from their torpidity, when they seek the surface, feeding at night on almost any green thing they meet with, eating most voraciously as they approach maturity and hiding under the surface of the ground during the day. The larvæ you have sent me are about full grown, and before this letter reaches you it is probable that a very large proportion of them will have finished their mischievous larval career and entered a chrysalis state under ground, where they remain quiescent, producing the moth in two or three weeks. They are hurtful only while in the larval condition. As remedies, showering the plants with Paris green and water, or sprinkling them with air slacked lime, or powdered hellibore, have been recommended, and where practicable will no doubt be found useful. Coal oil mixed thoroughly with sand, in the proportion of a teacupful of coal oil to a pailful of sand, and a little of the mixture strewed around cabbage plants, has been found useful in preventing the attack of these cut-worms. It is manifest that none of these remedies are feasible where large areas of field crops are invaded, as the area would be too great to undertake to cover with such material. Where such insects occur in unusual abundance, nature has provided most efficient remedies in the army of parasitic insects which prey upon them. Many of these parasites deposit eggs within the bodies of their victims, which, hatching into grubs, consume them; others devour the cut-worms bodily. Hence it most always occurs that an insect abundant one season is scarce the next."

Mr. James Fletcher, President of the Ottawa, Ont., Field Naturalists' Club, wrote as follows, under date of 14th July, 1884:—"The tin of cut-worms came quite safely to hand, and they are now carefully caged, to await their final transformation. It

would be impossible to say exactly to what species they belong. Two of the lot, however, I believe to be *Agrotis devastator*, a very injurious species, as the name implies. The others I am not certain of. They do not agree with any I am acquainted with, although in some particulars they agree with the true army worm *Leucania unipemeta*. In case I fail to rear my specimens, I shall feel obliged if you will have three or four put in a large flower pot half filled with earth, and a piece of gauze over the top. They should be fed every day with fresh leaves of cabbage or some plant they are known to feed on, and a few drops of water should be sprinkled on the earth every day, so that the earth does not get too dry. They are almost full grown, and in a few days will probably enter the chrysalis state, when the pot should be put carefully by. If it is seen that the leaves are not all eaten when changed, the quiescent chrysalis stage will have begun. The gauze should be kept on the pot; it is easily held there by an elastic band. In about three weeks the moths will emerge, and I shall feel obliged if you will send me a few. I have found coal oil very useful in repelling cut-worms and many other insects which attack plants near the surface of the ground. A convenient way to apply it is to put a teaspoonful in a pailful of dry sand, and stir it well up, until the whole is saturated with the odor. This sand should then be strewed lightly around the plants. If renewed once a week it is sufficient. I shall be obliged if you can give me any information as to the extent of the damage done by these insects, and an account of any remedies which have been tried; also, if they have occurred in large numbers in any particular district, or on any kind of soil more than elsewhere. The army worm generally first appears in low-lying localities, and then works up to the more elevated tracts, and usually moves in large numbers, all marching the same way."

During the early part of July caterpillars were observed attacking the leaves of Canada thistles in the eastern group of counties. In one case only were they reported to have been seen feeding on any other plant, at Kildonan, where they were said to have been found eating potato leaves.

An old resident of Winnipeg, Mr. W. G. Fonseca, said that similar caterpillars were here in immense numbers in 1867, when their voracity was not satisfied with thistles only, but they considerably damaged all kinds of vegetables. He said they did not appear here before or since 1867 until 1881. Specimens were sent to the President of the Ontario Entomological Society, Mr. W. Saunders, to the Entomological Division of the United States Department of Agriculture, and to Mr. James Fletcher, President of the Ottawa, Ont., Field Naturalists' Club.

Mr. Saunders wrote as follows, under date of 18th July, 1884:—"On reaching here the box was opened at once, but the caterpillars were all dead, and so mashed by being knocked about with the lumps of earth in the box that I am not enabled to determine them with certainty. I believe they are the larvæ of the "Painted Lady" butterfly—*Pyramis cardui*. This is an insect very widely distributed, and the only spring larvæ that I know of that feeds on thistles. If this is that insect, I have never known it flourishing on any other plant than thistle, and think that the reports of injury to potatoes and others plants can scarcely arise from this insect. If you will kindly send me some more specimens, I shall take pleasure in giving you further information."

A second lot of the caterpillars having been sent to Mr. Saunders, he wrote, under date of 8th August, 1884, as follows: "Your last box of insects came duly to hand, but notwithstanding the care in packing, did not reach me in very good condition. Caterpillars are sometimes very subject to a fungoid disease which occasionally sweeps them off by thousands. Some such disease had evidently affected those you sent me, as all but two were dead, and most of the dead ones were quite decayed. From the two living specimens I had no difficulty in determining the species, and it is, without doubt, what I supposed it was, namely, the caterpillar of the "Painted Lady" butterfly—*Pyramis cardui*. I think that the report you have received about its feeding on cultivated plants, grown as crops, will be found to be incorrect, as the butterfly is found over a large part of the civilized world, and I have never known or read of its doing any harm. In my experience I do not recollect finding it on any-

thing but thistles, but it is reported by others as occasionally found on wild sunflower, mallow, burdocks and several other plants, none of which are, however, of any economic value."

The specimens sent to the Department of Agriculture at Washington also reached there in such a damaged condition as to be useless for examination. A second lot sent, though carefully packed, without earth, shared a similar fate.

Mr. Fletcher replied, under date of 20th July, 1884, as follows:—"The package came to hand duly, but the contents were not in a condition to recognize with certainty. The earth placed with the caterpillars was unnecessary. When the box was opened a ball of stiff blue clay was what I found. I was able, however, to detect a branched spine of a caterpillar imbedded in the mass. This, as I expected, was of the larvæ of one of the vanessids, most probably *cynthia cardui*, or the "Painted lady." The parent butterfly hibernates during the winter and comes out early in the spring, and faded and torn specimens which have thus passed the winter may be seen late in the summer. The new brood, hatched from eggs laid on the Canada thistle in June, usually is abundant about 1st August. It is believed to be a perfectly harmless insect, if not indeed beneficial. I have never heard of its attacking plants of any other order than the composital. I cannot help thinking that the case reported to you of its attacking the potato is a mistake. If, however, on enquiry, it can be proved to be otherwise, I shall be glad to hear of it. Although this beautiful insect is found in almost every quarter of the globe, being, perhaps, as widespread as any butterfly, it is considered an omnivorous species, and it usually feeds on useless plants, as thistles, burdock, artemisia, &c."

Blackbirds have shown themselves in large numbers in several places, and their presence has been a source of much annoyance, as they have proved very destructive, particularly to the oat crop. In 1883 they did a great deal of damage to the late oat crop in the western part of the Province, their presence not being reported east of Range 12, west. In 1884 they were reported from three points in the eastern group of counties, and from two points in the central, which goes to show they are becoming more numerous and widespread.

Colorado beetles were only reported from four counties. Nothing was said of them further than to mention their presence. A number of specimens of them, obtained for the Department by Mr. C. J. Atkinson, of the Manitoba Liberal, Portage la Prairie, were sent to Mr. W. Saunders, F.R.C.S., President of the Entomological Society of Ontario, who wrote, under date of 23rd August:—"There can be no doubt whatever that they are the genuine Colorado potato beetle (*Doryphora decemlineata*). I shall be glad if you will let me know the names of the localities in which they have appeared and the area over which they extend, as far as you can conveniently ascertain."

Gophers have occasioned a large amount of damage. They have become a serious trouble in the western part of the Province, and no satisfactory means have been suggested for their destruction. They appear to be increasing both in numbers and consequent destructiveness. A great many correspondents have complained loudly of them, and lament the want of means to destroy them. Mr. G. M. Yeomans, of Township 10, Range 22, west, said: "united effort will be required to get rid of the fast increasing prairie squirrel in this settlement. Shooting matches, or a small bounty given by municipalities, would encourage their destruction wholesale." They appear to be more destructive to wheat than any other kind of grain. They appear to be almost entirely confined, with but three exceptions, to the western group of counties. The eastern group is shown to be perfectly free from them.

The following table shows cut-worms reported from thirty-two townships in the Province; blackbirds from 11; Colorado beetles from 4; and gophers from 24. Of the several pests mentioned, the eastern group of counties was apparently the one least troubled with their presence. The varieties of the pests and the number of townships each are reported from, are given in the table.

PESTS.

Counties.	Varieties and Number of Townships each reported from.			
	Outworms.	Blackbirds.	Colorado Beetles.	Gophers.
<i>Eastern Group—</i>				
Carillon		1	1	
D'Oroville		1		
Lorette	2			
Lager		1	1	
Manchester				
Marquette	1	1		
Saskatchewan				
Totals	3	4	2	
<i>Central Group—</i>				
Beautiful Plains				3
Dufferin	1		1	1
Marquette	2	2		
Norfolk	5			1
Portage la Prairie	4		1	
Rock Lake	1			
Westbourne	2			
Totals	15	2	2	5
<i>Western Group—</i>				
Brandon				2
Dennis	1			3
Minnedosa	3			1
Russell	1	1		2
Shovel Lake	2	2		4
Souris River	2	1		3
Turtle Mountain	5	1		4
Totals	14	5		19
Grand Totals	32	11	4	24

LIVE STOCK.

The reports received of the condition of live stock on 1st June, were of a most satisfactory character. With but few exceptions they had been invariably housed during the winter, and where any had not been, they were young cattle. Fodder of the very best kind seemed to have been abundant, and so universally was that the case that from only three points was a scarcity reported, and these were occasioned by the hay being destroyed by prairie fires in the fall of 1883. Stock was reported from all points as being in excellent condition, and as not having suffered in any degree from the severity of the winter through which they had lately passed. Another source of gratification was the absence of anything approaching a dangerous disease existing largely among meat cattle. Many reported a swelling on the throats of cattle during the winter months, but these all seemed to disappear as soon as they were turned out to the grass. A few cattle died through mismanagement. Among young pigs several died, but no satisfactory causes could be given, although one correspondent stated that in his opinion it was the result of feeding too much wheat to the sows. A species of paralysis prevailed among hogs in a few localities, with some fatal results.

The disease seemed to attack them first in the legs and finally extended to their backs. No disease was reported among sheep, but several young lambs had died. That is an occurrence that is always likely to happen. On 1st July stock was reported almost entirely free from disease. With the exception of glanders among horses, which unhappily prevailed in a few isolated cases, nothing was reported. The lumps in the jaws which prevailed among cattle had all passed away with the opening of spring. There being large quantities of inferior wheat on hand in many places, it was largely used as feed. Instead of feeding sparingly, the reverse appears to have been the case, and the mortality which occurred among sows and their litters was the result. The country is possessed of many young and inexperienced farmers, who require to give their calling greater study if they expect to get on and prosper.

DAIRYING.

Dairying is carried on as largely as the means of the farmers will admit of. All the butter that can be made is made, and the supply has been largely in excess of the consumption in the great majority of townships. Very little cheese has been made in excess of what was required for farmers' own use, although nearly all appear to make it. It is doubtful if any other part of the Dominion is more favorable for dairy farming than this Province. In some of the older Provinces the making season for butter and cheese may be longer, but then drought frequently prevails and the partial failure of the pastures results in a corresponding failure of the milk supply. In Manitoba; on the other hand, dried up pastures are the exception the grass possesses the most nourishing qualities and the rainfall is generally abundant and very evenly distributed. Another year is likely to find several cheese factories in operation at different points in this Province.

HORSES.

Horse breeding appears to have fairly begun in the Province, as a large number of foals were dropped last spring, and there is every indication of an increased number in 1885. In several of the townships no stallions were owned, consequently many mares were not served, but wherever practicable, they generally have been. The breeds of stallions are very mixed, although a number of good ones are to be found. The following table shows the number of horses owned in each of the several counties, with the breeds, and also the number of stallions. Native horses, which are to be found in almost every locality, were not included in the list, except in the numbers in each township. The total number of horses found in the Province in 1884 was 20,071, as compared with 14,181 reported in 1883, of which the eastern group had 6,758, the central 7,721, and the western 5,592. The majority is owned in the central group. The number of stallions reported was 178, with a very evenly divided number in the different groups. Of the several breeds, French Canadian were reported from 30 townships; Clydesdale from 25; Coach from 2; half-breed from 42; heavy draft from 6; Percheron from 16; thoroughbred from 5; roadsters from 5, and general purpose from 43 townships.

HORSES.

Counties.	Number of all ages and sexes.	Number of Stallions.	Breeds, and number of Townships each Reported from.								
			French Canadian.	Clydesdale.	Coach.	Half-breed.	Heavy Draft.	Percheron.	Thoroughbred.	Roadster.	General Pur.
Eastern Group—											
Carillon	51	1	1	1	1	1	1	1	1	1	1
D'Iberville	175	11	4	1	1	6	1	1	1	1	1
Loretto	668	8	1	4	1	1	2	1	1	1	1
Lisgar	899	30	2	1	1	27	1	1	1	1	1
Manchester	1,939	2	1	1	1	1	1	1	1	1	1
Morris	271	8	1	1	1	4	1	1	1	1	1
Selkirk	2,755	8	1	1	1	4	1	1	1	1	1
Totals for group	6,758	58	10	8	33	1	4	1	1	1	1
Central Group—											
Beautiful Plains	378	3	1	1	1	1	1	1	1	1	1
Dufferin	2,782	25	2	2	1	1	3	1	1	1	1
Marquette	352	3	1	1	1	1	1	1	1	1	1
Norfolk	946	9	3	1	1	1	1	1	1	1	1
Portage la Prairie	1,676	3	1	1	1	1	1	1	1	1	1
Rock Lake	1,370	13	3	1	1	1	2	1	2	1	1
Westbourne	217	2	1	1	1	1	1	1	1	1	1
Totals for group	7,721	58	7	6	1	2	7	1	3	2	2
Western Group—											
Brandon	1,760	13	2	5	1	2	1	1	1	2	2
Dennis	740	7	2	1	1	2	1	1	1	2	2
Minnedosa	974	6	1	1	1	1	1	1	1	4	4
Russell	350	5	2	1	1	2	1	1	1	1	1
Shoal Lake	653	12	4	1	1	1	1	2	1	2	2
Souris River	314	3	1	1	1	1	1	1	1	2	2
Turtle Mountain	801	11	2	2	1	1	4	1	1	2	2
Totals for group	5,592	57	13	11	1	4	3	5	4	1	14
Totals for Province	20,071	173	30	25	2	42	6	16	5	5	43

CATTLE.

Farmers are beginning to turn their attention to cattle raising in a very marked degree, and the numbers will, no doubt, be greatly increased from year to year. A large percentage of cattle are grades, although there are a considerable number of thoroughbreds, principally Durhams. The following table shows the varieties generally kept, apart from native cattle, which prevail in almost every locality, but which are not classed under the head of any particular breed. The aggregate number of cattle in the Province in 1884 was 64,011, as compared with 53,894 in 1883. Of the aggregate, 20,617 head were in the eastern group, 25,942 in the central, and 17,452 head in the western. Durhams were reported from 147 townships, Ayrshires from 14, and grades from 160.

CATTLE.

Counties.	Number of all Ages and Sexes.	Breeds, and No. of Townships each Reported from.		
		Durhams.	Ayrshires.	Grades.
<i>Eastern Group—</i>				
Carillon.....	236			
D'Iberville.....	436			
Lorette.....	3,044	6	1	3
Lisgar.....	6,313	6		7
Manchester.....	6,205	5		5
Morris.....	486	2		1
Selkirk.....	3,897	3	2	4
Totals for group.....	20,617	22	22	20
<i>Central Group—</i>				
Beautiful Plains.....	1,811	4		7
Dufferin.....	9,369	11	1	11
Marquette.....	1,939	5		5
Norfolk.....	3,193	8	1	8
Portage la Prairie.....	4,484	10		9
Rock Lake.....	3,380	17	2	17
Westbourne.....	1,786	2		3
Totals for group.....	25,942	57	4	60
<i>Western Group—</i>				
Brandon.....	3,961	9		10
Dennis.....	2,109	12	4	14
Minnedosa.....	3,983	11	1	12
Russell.....	1,986	6		10
Shoal Lake.....	2,825	14	1	16
Souris Lake.....	797	8	1	9
Turtle Mountain.....	1,791	8		9
Totals for group.....	17,452	68	7	80
Totals for Province.....	64,011	147	14	160

SHEEP.

The number of sheep in the Province is not very large. In some districts the want of market facilities causes sheep raising to be in a backward condition. Without exception, correspondents stated they could see no reason why sheep farming could not be made a most paying source of industry. This Province has all the conditions for success that have always been considered necessary. There is extensive pasturage of rich grass, rich dry soil and dry air, with a temperate summer climate. There is also the most valuable advantage of a winter season entirely without rain or sleet storms, which are such a scourge to sheep in other places. The demand for good mutton and choice wool is always ahead of the supply, and is likely to increase, and consequently render sheep the best paying stock that can be kept. Assuming that the prairies, in their wild state, are capable of feeding three sheep per acre, and an equal or larger number after seeding with cultivated grasses, a vast prospect is opened up for the near future. The nature of the pastures very materially affects the fleeces, as it is found that certain lands are adapted to long wools, while others suit short wools best. Improvement and advancement in sheep breeding means the advancement of agriculture, for large quantities of roots and green crops are required, and, to raise these, the best means of tillage and cultivation are a necessity. The

one drawback that farmers speak of in the way of raising sheep is the trouble keeping them fenced in and confined to their farms, as wire fencing, the kind most generally in use, is very detrimental to the wool. In 1884 there were 6,431 sheep in the Province, of which 2,274 were contained in the eastern group, 2,685 in the central, and 1,472 in the western. The number in the Province in 1883 was 4,211. Of the different varieties, Leicesters were reported from 43 townships, Merinos from 2, Cotswolds from 21, South Downs from 12, and unspecified from 2.

SHEEP.

Counties.	Number of all Ages and Sexes.	Breeds, and Number of Townships each Reported from.				
		Leicesters.	Merinos.	Cotswold.	South Down.	Unspecified.
<i>Eastern Group—</i>						
Carillon.....	13					
D'Iberville.....	44					
Lorette.....	369	2		1	1	
Isle-aux-Érables.....	1,142	1		1		
Manchester.....	527	2		1	1	
Selkirk.....	189					
Totals for group	2,274	5		3	2	
<i>Central Group—</i>						
Beautiful Plains	165	2		1	1	
Dufferin.....	788	2		1	1	
Marquette.....	198	2	1			1
Norfolk.....	227	1		2		
Portage la Prairie.....	435	2				
Rock Lake.....	740	8		6	3	
Westbourne.....	132	2				
Totals for group.....	2,685	19	1	10	5	1
<i>Western Group—</i>						
Brandon.....	296	2				
Dennis.....	164					1
Minnedosa.....	136	3		1		
Russell.....	128	2		1		
Shoal Lake.....	340	5	1	3	2	
Souris River.....	110	1		1	1	
Turtle Mountain.....	299	6		2	1	
Totals for group	1,472	19	1	8	5	1
Totals for Province.....	6,431	43	2	21	12	2

PIGS.

The principal varieties of pigs kept are Berkshire and Suffolk, though Yorkshire, Chester and Poland China are reported from a few points. The number of thoroughbreds is rather limited as yet. Every farmer, as far as possible, keeps pigs sufficient for his own use, but from several points correspondents spoke of very little pork being raised beyond what was actually required for home use. The counties which, in 1884, raised any considerable quantity of pork in excess of what was required for home consumption, were Dufferin, Rock Lake, Norfolk and Beautiful Plains. With the opening up of railway facilities and advancement in farming, the raising of pork will no doubt increase, a pork packing establishment having been opened in Winnipeg.

ork raising is a very great source of profit to the farmer, as a means of converting saleable material into a marketable product is produced, as a great deal of stuff that would be otherwise wasted is used. The number of hogs in the Province in 1884 was 49,011, as compared with 27,931 in 1883. Of the total number, 12,441 were in the eastern group, 19,832 in the central, and 12,623 in the western. Berkshires were reported from 264 townships; Suffolks from 91; Yorkshires from 8; Chesters from 7 and Poland China from 3.

PIGS.

Counties.	Number of all Ages and Sexes.	Breeds and No. of Townships each Reported from.				
		Berkshire.	Suffolk.	Yorkshire.	Chester.	Poland China.
Eastern Group—						
Carillon	168	2	.....	.....	.....	.....
D'Iberville	360	2	2	1	.....	.....
Lorette.	1,508	5	1	.....	1	.....
Lisgar	1,990	11	5	.....	1	1
Manchester.	5,075	5	1	.....	.....	.....
Morris	949	4	1	1	.....	.....
Selkirk	2,391	8	2	.....	.....	.....
Totals for group.....	12,441	37	12	2	.....	1
Central Group—						
Beautiful Plains	1,606	9	2	.....	.....	.....
Dufferin	7,276	19	9	.....	.....	1
Marquette	370	8	2	1	1	.....
Norfolk	3,103	15	9	.....	.....	.....
Portage la Prairie	1,995	12	3	.....	.....	.....
Rock Lake	4,715	26	12	.....	.....	.....
Westbourne	767	5	2	.....	.....	.....
Totals for group.....	19,832	94	39	1	1	1
Western Group—						
Brandon	2,944	15	5	.....	.....	.....
Dennis	1,075	24	6	1	.....	.....
Minnedosa.....	2,652	14	4	1	.....	1
Russell	1,311	17	3	1	1	.....
Shoal Lake.....	2,033	24	5	.....	1	.....
Souris River.....	654	13	7	2	1	.....
Turtle Mountain.....	1,909	26	10	.....	1	.....
Totals for group	12,628	133	40	5	4	1
Totals for Province	44,901	264	91	8	7	3

POULTRY

is almost universally kept throughout the Province, and with satisfactory success. Of the several varieties fowls are, as a matter of course, the most numerous, and are in many instances kept in very large numbers. Turkeys, geese and ducks are also kept in considerable numbers in many places. Means are adopted for keeping them comfortable during the winter, and no losses caused by that season have been reported. The means generally adopted are keeping them in underground houses and in the ordinary cattle sheds. They seemed to be troubled in many places by mink, foxes, weasels and skunks, which destroyed large quantities of them where not fully

protected. These seemed to have been the only drawbacks to the success attending poultry raising. The value of poultry on the farm is not always so readily seen as that of some larger stock, because of being made up of smaller things. In this Province, where eggs and poultry are so comparatively scarce and costly, and bird food so cheap, the profits should be very large. In proportion, poultry pays the best of any stock, and eggs are cheaper than any other food, considering the nutriment contained in them. A Toronto paper recently made the following remarks on this subject: "The North-West being a great country for wheat, hens ought to be kept there by the millions, and there should be no shipments of car-loads of eggs from Ontario to Winnipeg. It has been proved that wheat is good for hens, the high price being the chief objection. But even in the best years for wheat, a large quantity of tailings must be thrown out by the fanning mill, and that might feed hens and be the means of providing hen-fruit to any amount. It is about time the Manitoba demand for Ontario eggs had ceased." It is to be hoped that Manitoba farmers will profit by the suggestion made and endeavor to cultivate, as far as possible, this most profitable branch of farming.

GENERAL FARMING,

In the circular addressed to crop correspondents on 15th May, 1884, they were asked to state what branches of mixed farming, if any, were adopted. From the replies, it appeared that stock raising, in connection with grain growing, was being universally practised and that farmers were going into stock and poultry as rapidly as their means would admit of. Want of railway communication and suitable markets in some districts prevented stock raising to some extent. The Province is thoroughly well adapted for the raising of stock, there being abundance of grass and water to be found throughout the grazing season, and stock is not inconvenienced by the severity of the winter months. In the table next following these remarks is given the number of farmers in each county and the average number of acres occupied by each. In answer to the question as to the average number of acres occupied by each farm, several correspondents gave the average amount of land actually under cultivation, instead of the average quantity contained in each holding. As the several townships are regularly divided into sections of 640 acres, the farms should properly be made up of an average number of acres corresponding with 640 as a multiple. In the several parishes on the Red and Assiniboine Rivers the areas contained in the several farms are different, another system of survey having been adopted. The table shows a total of 9,203 farmers in the Province, occupying an average of 281 acres, of which the eastern group contains 1,569 farmers, with an average of 245 acres; the central 3,014 farmers, with an average of 278 acres, and the western 4,625 farmers, with an average of 320 acres.

FARM LANDS.

The table next following these remarks shows the average value per acre of improved and unimproved lands in the different counties, as estimated by correspondents, with the percentages of land unoccupied or non-residents. As a group, the prices for both improved and unimproved lands rank highest in the eastern, the percentage of unoccupied or non-resident lands being also highest. Next in order comes the central; the western, in order of its settlement, being the lowest. In a number of townships no land had changed hands for some time; in others, only the assessment rates could be taken as a guide, and in several so much was held in the hands of speculators and companies that no satisfactory values could be placed upon the land by correspondents. Throughout the Province 56 per cent. of the land was stated to be unoccupied or non-resident; the average cash value per acre of improved land, \$10.70; and the average cash value per acre of unimproved lands, \$5.63. In the eastern group of counties the percentage of unoccupied or non-resident lands was stated to be 59 per cent.; the average cash value per acre of improved land, \$13.00, and of unimproved land, \$6.83; in the central group the average percentage of

unoccupied or non-resident land was stated to be 56 per cent; the average value of improved land per acre, \$10.58, and of unimproved land, \$5.75. In the western group the percentage of unoccupied or non-resident land was stated to be 52 per cent; the average cash value of improved land, per acre, \$3.52, and of unimproved land, \$1.47.

VALUE AND EXTENT OF FARMS.

Counties.	Number of Farmers.	Average Number of Acres in each Farm.	Percentage of Land Unoccupied or Non-resident.	Average Cash Value per Acre of improved Land.	Average Cash Value per Acre of Unimproved Land.
Eastern Group—				\$ cts.	\$ cts.
Carillon	27	210	80	8 00	4 00
D'Iberville	96	160	62	12 50	5 00
Lorette	352	192	58	10 25	3 33
Lisgar	300	269	70	14 87	7 20
Manchester	330	205	32	7 00	5 00
Morris	92	320	55	13 50	10 50
Selkirk	372	360	55	25 00	12 80
Totals for group	1,569				
Averages for group		245	59	13 00	6 83
Central Group—					
Beautiful Plains	363	260	53	10 70	6 00
Dufferin	659	280	54	10 20	6 90
Marquette	183	240	72	8 55	4 00
Norfolk	664	260	47	9 70	5 35
Portage la Prairie	291	290	60	14 40	8 00
Rock Lake	761	300	53	8 00	4 80
Westbourne	93	320	54	12 50	5 20
Totals for group	3,014				
Averages for group		278	56	10 53	5 75
Western Group—					
Brandon	983	320	35	11 80	6 40
Dennis	658	320	49	9 00	3 80
Minnedosa	644	320	48	8 95	4 45
Russell	493	320	59	7 00	4 00
Shoal Lake	755	320	55	8 00	4 20
Souris River	394	320	65	6 93	4 00
Turtle Mountain	699	320	55	8 00	4 45
Totals for group	4,625				
Averages for group		320	52	8 52	4 47
Totals for Province	9,208				
Averages for Province		281	56	10 70	5 68

FRUITS.

Some fruits grow in almost every township, while others are rarely reported. As a general thing, fruits of the ordinary varieties were abundant in 1884 and those of the berry varieties were decidedly plentiful in all quarters. Among the varieties of fruit cultivated, the principal ones are currants, gooseberries, strawberries, apples, plums, raspberries and crabapples. Of these, currants, gooseberries and strawberries

WILD BEES

were reported very scarce by the great bulk of correspondents; a number said nothing about them; less than a dozen reported them plentiful, and a number said they had not seen any. So far as could be learned from the reports, they did not seem to be confined to any particular part of the Province, though few and far between. One correspondent in Dufferin expressed the opinion that bees should do well here.

GAME.

The pin-tailed grouse, or, as it is popularly called here, the prairie chicken, and the various varieties of ducks taken throughout the Province, did not appear to vary in numbers in 1884 very much, one way or the other, from 1883, though ducks did not seem quite so plentiful, while chickens remained about the same. The game laws, with few exceptions, were reported strictly observed, the exceptions being where there was an insufficient number of game guardians: In the counties of Manchester, Turtle Mountain, Dennis and Souris River the laws did not appear to be so strictly observed as in the other ones. The offenders were chiefly Indians, who destroy game without regard to the seasons or the localities in which they find it. In the Turtle Mountain district, Indians come in from the American side of the line in Dakota and carry off large numbers of game at all seasons.

HOPS.

Native hops grow wild in every county and in almost every township in the Province, and are picked for home use, being, so far as can be learned, the only variety used by the settlers. In very few cases have they been picked for marketing purposes, the counties of Partage la Prairie, Rock Lake, Lisgar, Dennis and Souris River being the only points from which sales have been reported. They have been in every case pronounced to be of excellent quality, large and numerous. In 1884 the wild hop was cultivated in a few places in the counties of Shoal Lake, Dennis, Minnedosa, Rock Lake, Westbourne, Dufferin, Norfolk and Lisgar, and in every case with encouraging results, as all correspondents spoke highly of the success attending their cultivation. One correspondent in Minnedosa said he had never seen their equal in Ontario. A large number would pay more attention to the cultivation of hops if the quality of the wild variety was not so excellent and its quantity not so abundant. With but few exceptions, correspondents appeared to be of one mind in saying that hop growing could be made a paying industry in Manitoba, so far as the yield and quality are concerned. Judging from the returns of the wild variety, cultivated varieties, if at all equal in productiveness, should make the industry a paying one. The native variety is of such excellent quality that its improvement by cultivation would very likely be attended with more success than if ordinary cultivated varieties were introduced from elsewhere. The question of paying market prices and the cost of labor have, of course, to be considered. The principal drawbacks to be feared to the successful cultivation of hops are the high winds which frequently prevail on the prairies. The open prairie would not prove suitable for hop fields, but no fears need be felt for their safety if suitably sheltered grounds could always be found. As will be seen by the following table, wild hops were reported in 172 townships in the Province and cultivated varieties in 12 townships.

HOPS.

Counties	No. of Townships from which Reported.	
	Wild.	Cultivated.
<i>Eastern Group—</i>		
Carillon	1	
D'Iberville	1	
Lorette	2	
Lisgar	5	1
Manchester	6	
Morris	1	
Selkirk		
Totals for group	16	1
<i>Central Group—</i>		
Beautiful Plains	12	
Dufferin	19	1
Marquette	6	
Norfolk	12	3
Portage la Prairie	9	
Rock Lake	20	1
Westbourne	4	1
Totals for group	82	6
<i>Western Group—</i>		
Brandon	9	
Dennis	14	1
Minnedosa	12	3
Russell	9	
Shoal Lake	14	1
Souris River	8	
Turtle Mountain	8	
Totals for group	74	5
Totals for Province	172	12

LABOUR.

For labourers there appears to be a fair demand in a great many localities when reports were received from correspondents on 1st July, 1884. In the older counties, particularly, the demand appeared pretty general for farm labourers. The dates in several places in which they were required extended from the opening of spring work till the ending of fall ploughing and threshing. The greatest demand existed during the haying and harvesting seasons. A few correspondents reported labourers wanted during the whole year. In the more recently settled townships, where there are but a limited number of farmers, work is exchanged, and in that way, and assisted by such implements as they have, they manage to get through their harvest without the assistance of hired men. The wages paid to farm hands per month, with board, in 1884, varied from \$18 to \$30, the average being \$23.50. The custom of paying so much per month with board almost entirely prevailed. For female servants the want appeared to be as great as, and in many localities even greater, than that of farm labourers. It is very difficult to obtain female servants for farm houses, their apparent desire being to get into the cities and towns. Judging from the

manner in which it has been spoken of in many of the reports, the scarcity was severely felt in many parts of the Province. Wages ranged from \$8.50 to \$20 per month, the average being \$11. Considering all that the great majority of domestics in the cities and towns have, in a great many cases, to contend with, it is a great pity that such a condition of things as here pointed out should exist in the rural sections; to the question: "Has the supply of farm labourers been equal to the demand" in the September reports a number of correspondents made no reply. In the early part of the season it was expected that there would be a large demand for farm labourers in the older localities during haying and harvesting, and until late in the fall. The September reports showed a great scarcity had prevailed, labourers having been required in every county except Wesbourn, Beautiful Plains, Carillon and Morris. In each of the remaining counties from one to ten townships wanted labourers, and of these townships several required from one to six additional men to serve their wants. While the greater number of correspondents simply said that the supply was "not equal to the demand," or that it was "scarce" and, "very scarce," about one-third reported a scarcity, and it is safe to say that several hundred farm labourers could have found employment at good wages during the past haying and harvesting seasons.

NORTH-WEST TERRITORIES.

AGRICULTURAL STATISTICS.

In the following tables the district of Assiniboia has been divided into three sub-districts.

No. 1 includes all the ranges to and inclusive of Range 6, west of the 2nd Meridian.

No. 2 includes all the ranges to the 3rd Meridian.

No. 3 includes the district around Medicine Hat.

There are 74 townships reported as being under various crops in group 1, but from a large number no report whatever was received.

In group 2 only 51 townships sent in returns, about half of which were in the neighborhood of Regina.

Group 3 was very poorly reported, only 5 townships being heard from.

In Alberta 22 townships gave the result of the crop, the majority of these being around Calgary.

Notwithstanding that the past year has been somewhat unfavorable for crops in every part of the Dominion and the United States, it is gratifying to note that the averages established from the returns sent in are extremely satisfactory, and demonstrate conclusively the remarkable fertility of the North-West.

The opinion of all is, in general, that early sowing is essential to success, and extensive fall ploughing to be advisable.

HAY.

This crop was practically all prairie grass, as only one township, No. 7, Range 3, west of 1st Meridian, reported cultivated, and this consisted of 20 tons, being an average of $1\frac{1}{2}$ tons per acre.

The estimated average of the yield per acre was, in general, $1\frac{1}{2}$ tons, and as the cut was usually taken from the best spots, the exceptional estimates of 3 or 4 tons per acre would not alter the general result to any appreciable extent.

The total reported from the townships sending returns was:—

	Tons.
Group 1.....	17,735
do 2 (Assiniboia).....	14,848
do 3.....	450
Alberta.....	5,520
Total.....	38,553

NEW PLOUGHING.

SPRING.

	Number of Acres.	Spring Breaking.		Grand Average of Dates.	
		Com- menced.	Ended.	Com- menced.	Ended.
Assiniboia—					
Group 1.....	13,944	May 11...	June 28...		
do 2.....	16,609	April 25...	July 14...		
do 3.....	121	do 16...	June 8...		
Alberta.....	1,971	do 4...	do 12...		
	32,645			April 21...	June 23.

FALL.

	Number of Acres.	Fall Breaking.		Grand Average of Dates.		Number of Farmers.
		Com- menced.	Ended.	Com- menced.	Ended.	
Assiniboia—						
Group 1.....	1,245	Sept. 8...	Oct. 24...	.....	.....	1,141
do 2.....	2,655	do 1...	do 28...	.....	.....	821
do 3.....	51	do 23...	do 26...	.....	.....	44
Alberta.....						217
				Sept. 11...	Oct. 26...	2,223

WHEAT.

	Number of Acres.	Number of Bushels.	Average per Acre.	Grand Average.	GRAND AVERAGE OF DATES.					
					Seeding.		Harvest.		Com- menced.	Ended.
					Com- menced.	Ended.	Com- menced.	Ended.		
Assiniboia—										
Group 1.....	10,809	238,608	22.07	.....	April 11...	May 17...	Aug. 26...	Sept. 22...		
do 2.....	9,317	196,336	21.07	.....	do 14...	do 12...	do 23...	do 20...		
do 3.....	40	1,120	28	.....	March 26...	April 5...	do 10...	do 1...		
Alberta.....	14	310	22.14	.....	do 28...	May 1...	Sept. 1...	do 30...		
	20,180	436,374		21.62			April 4...	April 29...	Aug. 23...	Sept. 18.

OATS.

Assiniboia—										
Group 1.....	5,111	176,504	34.33	.....	April 22...	May 20...	July 30...	Oct. 12...		
do 2.....	7,731	308,805	40	.....	do 24...	do 28...	do 30...	Sept. 29...		
do 3.....	235	10,062	43.81	.....	do 27...	do 21...	Aug. 2...	Aug. 17...		
Alberta.....	835	28,950	36.90	.....	do 15...	do 14...	do 25...	Sept. 22...		
	13,892	521,321		37.74			April 16...	May 21...	Aug. 6...	Sept. 20.

BARLEY.

Assiniboia—										
Group 1.....	2,333	69,658	29.81	.....	May 2...	May 20...	Aug. 17...	Sept. 10...		
do 2.....	1,637	50,659	31.07	.....	April 14...	do 23...	do 23...	do 12...		
do 3.....	193	7,384	40.34	.....	do 8...	do 4...	July 21...	July 26...		
Alberta.....	284	6,700	23.84	.....	do 20...	do 26...	Aug. 17...	Sept. 8...		
	4,427	134,301		30.33			April 19...	May 18...	Aug. 12...	Aug. 30.

[illegible]

TURNIPS.

[illegible]

CARROTS.

[illegible]

BIGETS.

[illegible]

MANGOLDS.

	Number of Acres.	Number of Bushels.	Average per Acre.	Grand Average.	GRAND AVERAGE OF DATES.			
					Seeding.		Harvest.	
					Com-menced.	Ended.	Com-menced.	Ended.
Assiniboia—								
Group 1.....	8	2,000	250.00	.....	May 3...	May 6...	Oct. 15...	Oct. 31...
do 2.....	114	30,465	267.23	.....	do 7...	June 8...	Sept. 12...	do 6...
do 3.....	1	400	400.00	.....	do 4...	May 6...	do 25...	do 5...
	123	32,865		267.19			May 5...	May 17... Oct. 14...

LIVE STOCK.

	Horses	Cattle.	Sheep.	Pigs.
Assiniboia—				
Group 1.....	737	3,635	85	2,952
do 2.....	1,333	3,543	201	2,355
do 3.....	445	917	12	121
Alberta.....	7,009	60,900	12,000	.....
		68,094	12,298	5,428



